Global power, local connections

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THE CONTRACTOR STATE AND ITS IMPLICATIONS, 1659–1815

Richard Harding and Sergio Solbes Ferri (coords.)

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Summary

Introduction 0

Richard Harding and Sergio Solbes Ferri
(editors)

The relationship between private enterprise and the state has been one of the master narratives of European history. Whether it is an examination of the emergence of the modern state, the economic development of Europe, the distribution and exercise of power among its elites or the conduct of war between states, the links between states exercising power over defined territorial units and the production of wealth within those units are fundamental to an understanding of events. In the last quarter of the twentieth century historians' interest in these links intensified and reflected a similar interest among political scientists and economists in the development of the modern state system. Positivist assumptions about economic systems and political rationality are increasingly challenged by world events and the development of theory. Two world wars had called rationality into question, while the trajectory of events in Western and Eastern Europe undermined a faith in both Anglo-Saxon economic exceptionalism or communist determinism.

The modern study of state formation has come a long way since the 1970s and has depended heavily on historical analyses of different states and their paths to '*modernity*'. A major contribution to the debate came in 1989 with John Brewer's concept of the Fiscal-Military State as an identifiable stage in the emergence of the British state between 1688-1783 (Brewer, 1989). He turned the traditional liberal idea of British political and economic development on its head. Instead of highlighting the relative weakness of the British state, which provided the political space for private enterprise to flourish and influence policy, he noted the strength of the state bureaucracy in being able to mobilise resources and deploy them to meet the ends of state policy, which in this period of European competition were almost exclusively military. This close

connection between fiscal strength and military resources produced a military force out of all proportion to population and domestic natural resources.

The elegance of Brewer's explanation of British development provoked a major response among scholars interested in testing his proposition with more detailed studies of British history and those who wished to test it against the experience of other states. The results have been very fruitful. Brewer's original thesis has been refined by some, restated or reframed by others. It remains a contested, but useful concept to shape research and debate.

Part of the process of engaging with Brewer's thesis is a long-term project started in 2004 by a group of scholars from Spain. They assembled an international group of historians interested in various aspects of the Fiscal-Military State and its relationship to economic and military development. The Contractor State Group (CSG) is now an international researching team with the objective of studying the process of growth and development of nation states. This present collection of essays is the result of their fourth conference which took place at the University of Las Palmas de Gran Canaria (Spain) between 16th and 18th November 2011.

From the first conference of the group, it was clear that while a great deal of attention had been paid to how states raise money for war, much less was known about how they spent that money, how the economic-political systems within which the spending occurred responded and, consequently, what impact this had upon military success. The first collection of essays shed light on all these matters (Bowen and González Enciso, 2006). By the time the second collection of essays was published it was time to reflect on the concept of the Fiscal Military State and, as Professor Torres' introduction made clear, re-connect it to the key issues of economic development and fiscal flexibility; themes that echoed throughout that volume (Torres Sánchez, 2008: especially pp. 13-44). Recently, the third publication of the CSG has been published in which reflected on the spending of the states, the different ways of using national wealth and its economic consequences (Conway and Torres Sánchez, 2010).

This fourth volume, the results of the conference held at Las Palmas, is like its predecessors in that it reflects the state of the debate at the present moment. The main objective was, in this case, to analyse state activity as a contractor and the impact this had on stimulating the productive activity in each country. None of the volumes have tried to construct a rigidly confined comparative history, but instead to bring forward exemplars of issues facing historians interested in the development of the Fiscal-Military State. The title of the conference —'*The Contractor State and Its Implications*'— and

its proceedings indicates one important feature of that current debate. Over the years, the term Fiscal-Military state has lost its precision. The lowest common denominator of its definition —that of a state whose primary function is warfare being resourced principally via a state bureaucracy— is capable of application to almost any state in Western and Central Europe between 1500 and 1815 as well as some states outside Europe. While this debate continues and the term continues to evolve, the idea that it can be usefully used to explain a distinct, let alone necessary, phase in state formation remains illusory. For scholars of eighteenth century Europe it remains extremely important concept, but one whose explanatory powers are currently limited.

The term 'Contractor State' was used, following the example of the title of the 2010 monograph by Roger Knight and Martin Willcox on the work of the British Navy's victualing service, between 1793-1815 (Knight and Willcox, 2010). In this work they highlight the fact that the private contractors were the primary suppliers, not just of victuals, but of almost all the resources, including warships, for the Royal Navy during this period. The state was primarily a purchaser and consumer (first tier and second tier) of the resources provided by private contractors, not a producer. This has been well known to historians, in that it was the common way of waging war since the decline of feudal obligations and the changes in military technology made specialist skills essential to the conduct of war in the latter part of the Middle Ages. Also, the difficulties with these contractors have been at the centre of the state formation debate since its inception (Parrott, 2010: 74-95). The contractor never disappeared, but as recent scholarship has conceded, the focus on the centralising state, absolutism, and coercion has led to a neglect of collaboration, co-operation and accommodation. As these last elements have come back into interpretations of the early modern state, so it seems important to re-examine the contractor-state relationship. It makes us incorporate more explicitly the commercial infrastructures within which these states inter-acted. The fact that it poses as many problems as it resolves is evident from Patrick O'Brien's essay. Professor O'Brien's decades of work on the comparative fiscal performance of early modern states has, with John Brewer's concept of the Fiscal-Military State, been the one of primary foundations of this series of conferences and publications. He reminds us of the need to find a means of making judgements about comparative fiscal bases, both quantitatively and in terms of the factors that underpinned policy development. He deliberately emphasises the Eurasian context, rather than the Western European experience. The conduct of war is a common denominator among the European cases, but as Tamaki Toshiaki points out, the cultural-political imperative of exploiting war

or warrior traditions to preserve a regime can be a major influence on policy despite its absence in reality. Without imperial expansion, economic development had to come from domestic reform under the Tokugawa shogunate between 1716-45.

Wherever contactors and state performance meet, contemporary political rhetoric almost universally highlights corrupt systems, profiteering and sub-standard quality. Detailed research on specific examples of these relationships has produced more nuanced conclusions. Generalisations are not yet possible, far less, as Knight and Willcox accept in their contribution to this volume, is it possible to suggest that 'Contractor State' is a tight concept that will have analytical force. Only time will tell, but in the meantime, the idea of focusing on contractual relations and their implications for military success, thereby deepening the data we have, is one that unites most of the scholars represented by this volume.

Contracts do not exist in the abstract, but are responses to a specific need, which both client and contractor believe can be fulfilled with an agreed price and quality of service. For the client, in this case the state, the contract is part of constructing the supply chain of resources towards the outcome of an effective military force. These were not simple contracts. They involved the provision of large quantities of goods, over long distances, for prolonged periods. They were agreed in wartime for delivery in war-zones. Price fluctuations could be significant and needs could change dramatically. They involved the provision of goods that were paid for by the state (first tier consumer), received by an army or navy administration (second tier consumer) and distributed for final consumption by a soldier or a sailor (third tier consumer). Between the contract and the needs of the various consumers many expectations and assumptions could be inadvertently built in. The political power of the consumers on the contract varied considerably over time and place. Similarly, the 'upstream' supply chain was equally complex.

The papers in this volume shed light on a range of dimensions of the supply chain and contract management. One of the most difficult problems for historians dealing with this subject is the imbalance of the surviving evidence. To understand a supply chain it is essential to understand the parties who made and executed the contracts. Unfortunately, our knowledge is at best unbalanced. In some states, for example Tokugawa Japan, central administrative records are almost entirely absent. In most other states under consideration in this volume, state papers relating to contracts have survived in almost all cases far better than those of the contractors themselves. For the most part these contractors remain shadowy characters. It is often easy to identify

the contractors, but far less simple to understand how their businesses operated. Nevertheless, in some cases correspondence does survive, often in the state archives, which sheds light on their view and actions. For example, Joel Felix is able to give a balanced shape to the contracting system for military supply to the French Army during the wars of 1741-48 and 1756-63, with reference to correspondence from the director of the *Munitionnaires géneraux des vivres de Flandres et d'Allemagne* Jacques Marquet de Bourgarde. Knight and Willcox have been able to make extensive use of correspondence within the Victualling Board papers to construct a picture how the Board's relations with contractors changed over the period of war between 1793-1815. Margrit Schulte-Beerbühl's article on German merchants who broke Napoleon's continental blockade to facilitate trade between Britain and the Continent is another example of the value of merchant records in understanding economic warfare.

Another group who have largely been ignored are the commissaries. They were formally part of the state administrative structure, managed the distribution of supplies and sometimes were contractors in their own right, but had less permanence or continuity than those officials who served in the metropolitan offices. These men experienced at first hand the quality of the output from contracts, but like the contractors themselves, they were very often the butt of discontent from the soldiers or administrators. The contemporary accounts of their activities are coloured by this hostility and their own correspondence is consequently often defensive or self-justificatory. Nevertheless, as Stephen Conway's paper on the supply to the British forces in North Germany 1758-63 has shown, they can provide valuable evidence of how contracts worked and the obstacles in the way of smooth execution. While the issue of surviving evidence bedevils most of the essays in this collection, there is enough to encourage further study of supply chains. At the heart of any supply relationship is the trust which the purchaser must put in the supplier. This influenced many decisions by state administrators as to whether the state should produce for itself or purchase products from the market. Whichever decision is made, there has to be confidence in cost, quality and the reliability of both product and producer. The greater the levels of trust there is, the greater will be the flexibility on the parts of state and contractor to adjust as conditions change.

However, decisions to change a contract or move to state production were reliant on good information about the market and the potential suppliers, effective monitoring and risk management. As this collection shows, so much of this information was missing at the point of decision and an understanding of changing markets had to be built-up during the execution of a contract. The Spanish state's reaction to this problem is

traced in three essays. Agustín González Enciso clearly demonstrates a number of these issues in relation to the supply of cannon to the Spanish Navy. Domestic production of cannon was never adequate for an expanding navy so contracts had to be placed with French, British and Swedish manufacturers. Some reliance had to be placed on domestic production, but the stability of private manufacture was doubtful and it was decided to take the factory into state control. However, despite all that was done to secure the quality and quantity of cannons from foreign and domestic sources, a major problem was unmasked when a mass proofing of the guns in 1772 revealed massive failures. Despite an explicit commitment to the mercantilist doctrine, the Spanish state proved unable to stimulate domestic production or manage foreign supply. Rafael Torres demonstrates that similar problems beset the supply hemp, rigging and sailcloth. The direct intervention of the state as a producer in a fragile market caused major disruption to the private producers of sailcloth. It seems the state was not powerful enough to manage contracts effectively within an international market, and yet too strong when intervening for domestic production.

As this suggests, flexibility was a key problem in state-contractor relations. Large scale, effective and efficient supply depended on being able to manage people ranging from wealthy domestic and foreign financiers, foreign merchants and intermediaries, domestic craftsmen to small scale farmers. States were not necessarily good at dealing with this range. However, as Sergio Solbes's paper on the supply of wardrobe to the Spanish Army during the eighteenth century shows, there were aspects of supply which could be flexible and controlled, moving to and from monopoly in the supply and between centralisation and decentralisation in the budgets. He emphasizes the different decisions on this matter between the different reigns —and the different governmental machinery it required, arriving at the conclusion that there is not a consistent policy of contracting the wardrobe in Spain during the eighteenth century.

This was not unique to the Spanish state. Pierrick Pourchasse shows that the supply of naval stores from the Baltic for the French navy suffered from the limited direct engagement with the Baltic market. Despite a thriving trade to the Baltic, there were few French merchants resident in the Baltic and Scandinavian towns. At one level French trading interests were served extremely well by Dutch carriers and middlemen, but the cost was that France's most persistent enemy during the century, Great Britain, was able to build up a huge advantage by direct trading links to these ports and, effectively, control the supply naval stores to France. The contrast between the French and British commercial networks in Northern Europe is evident and it is difficult not

to conclude that the strength and flexibility of those networks had a significant impact on the Franco-British naval balance in war.

It is possible that the Anglo-French commercial structures in Baltic and Scandinavian market gives a hint of something that defines a 'Contractor State'. The focus here is less on the state administrative system that enables effective fiscal policies to be turned into tax revenues and then into the weapons of war, and more on the state's ability to work with a sophisticated supply chain, both domestic and international. The focus of the 'Fiscal-Military State' is on control of resources by direct state control. The 'Contractor State' seeks to control resources by the indirect influence of commercial interest. Of course, this implies an effective administration that understands the supply chain, but it also implies a network of suppliers who are capable of understanding and meeting the changing needs of the state. These suppliers might make large profits in times of war, but have got to be flexible enough to survive the retrenchments of peace. For the state, the indirect influence on commercial interest is just another policy with the same aim as any Fiscal-Military State policy: the effective mobilisation of resources to meet the military objectives of the state.

The essays in this volume concerning Britain and the United Provinces suggest that this idea might be worth some further investigation. Britain seemed to be operating in an environment in which supply chain management was much easier than in Spain or France. The situation was far from perfect, but, as Knight and Willcox indicate, having accepted that the Royal Navy would depend substantially on private contractors, a great deal of effort was put into monitoring and controlling the contracts. By the beginning of the war in 1793 there was enough trust in the reliability of contractors to commit the state to the process on a large scale and attention was focused on making adjustments in performance demands as the war expanded in scale, scope and costs. There was fraud and failure, but not on a scale that significantly hindered operations. This reliance on the market was not new. As Richard Harding's essay shows, the British state had expanded its navy to meet the demands of war between 1739 and 1748 by engaging the private shipbuilders. Britain had relied upon private warship building throughout most of the seventeenth century, but turned to production in its own yards at the end of the century and into the first decades of the eighteenth century. The decision to buy completed vessels from merchant shipbuilders and contract for bespoke warships was a pragmatic response to the need to expand a balanced fleet rapidly. The decision relied on the trust the state reposed in the shipbuilders' ability to fulfil the demands of the contract. Only one contract had to be taken over by a

royal yard during the war. By the end of the war a contract had been even placed for a major ship of the line, a 74, and by the end of the eighteenth century, almost all British warships were built in private yards. It was the success of the industry as much as the quality of the administrators that made private provision of warships possible.

The maturity of the supply base, the merchant and industrial infrastructure, was a key factor in the capability and flexibility of any contracting system. That infrastructure ranged from the local to the national and international and the quality of the state's connections with the various levels was important. As Pepijn Brandon shows in relation to the Dutch Admiralties' supply networks, their global naval reach was facilitated by blending good, national, accounting arrangements which monitored and controlled contracts, with systems that enabled captains to connect to their own local merchant markets to ensure the supply of credit and victuals for their ships. Like other systems, it was imperfect, but it was a supply chain that made the most of rich local resources by good comparative monitoring and control.

Sophisticated international market networks could not controlled by a single state and their operations are not easily reconstructed by historians. In the early nineteenth century this worked to Britain's advantage as Napoleon failed to impose his Continental System upon the European economy between 1806 and 1812. About a hundred years ago Gustav Schmoller remarked that the history of the eighteenth-century trade was actually a history of smuggling. M. S. Beerbuehl's paper analyses the strategies German merchants adopted to undermine the blockades to supply Britain and the Continent with the contraband goods. German merchants also participated, with British consent and support, in the bullion trade from Mexico to Spain. However, the clandestine nature of the trade hid the involvement of German merchants or German shipping from the state records. Germans were often hidden either under the label of Dutch or not mentioned because they had settled abroad in countries like Britain or Spain from where they organized the secret trade. Beerbuehl's paper is a major step towards identifying participation in a crucial trade network.

Despite British dominance in the trans-oceanic trading networks, not all clandestine networks worked to the advantage of the British state. Huw Bowen's paper shows that they could equally work against Britain. While as a local and national level in a mercantilist system, contractors' interests were generally closely aligned to the interests of their national governments, the international networks of trade created opportunities for merchants that were not necessarily consistent with the aims of states. The Dutch carrying trade was ubiquitous in the early eighteenth century, but not always consistent

with Dutch policy objectives. British merchants supplied French and Spanish navies with cannons and naval stores. To the dismay of the Honourable East India Company, large quantities of British small arms and cannons found their into the hands their enemy Tipu Sultan of Mysore. Some of these weapons leaked out through the Company's own supply chain from Europe, transferred by the Company's servants or ships' masters to other vessels. Others were taken out by ships sailing with false colours and manifests. Merchants who were happy to contract with their own states were also willing to trade with others and despite the declarations and penalties of the law it was a practice impossible to eliminate.

The state was not the only large consumer in the early modern economies. Chartered companies, like the British Honourable East India Company and the Dutch VOC were major consumers and their relations with contractors might shed light on contractor relationships to compare and contrast with state-contractor relations. Helen Paul's study of the Royal African Company's (RAC) contractors provides an example of this, giving insights into a contractor relationship that can be compared to that of the Royal Navy and its contractors. The RAC, like all joint-stock companies, was a hybrid between a private company and a government department. It operated on a far smaller scale than the Royal Navy or the East India Company but it faced many of the same problems of supplying ships and it might be expected that its experience of contractors would be similar to the Royal Navy. Paul explores the level of mutual dependence between the Company and its contractors. Her findings suggest that the Company did have some monopsonist power, but did not or could not behave like the state in the payment of its bills. Similarly, like the state, it also experienced problems over the quality and timeliness of its supplies.

Returning to the European Continent, Moreira and Eloranta's paper explores the Portuguese military supply system during the Peninsula War, a critical period of conflict and dislocation for the Portuguese state. Like other states, Portugal required a management structure that ensured the provision of supplies, guaranteed their quality, and ensured price controls. Particularly interesting in this case is the transfer of organisational systems between states. Britain played a critical role in financing the Portuguese war effort and this was reflected in the supply management system that was created. It was not just the purchase of supply that was important. The system was required to supply the Portuguese Army, made up of 80,000 men and militia, but this essay also highlights the significance of transportation in the supply infrastructure.

In so far as these essays help to illuminate the supply chain in resourcing warfare in the early modern period, they take us beyond the traditional territory of the Fiscal-Military State debate. It broadens the set of actors that we need to consider when thinking about the precise relationship between state formation, administrative systems, fiscal bases and military success.

The task of developing our understanding of the Fiscal-Military state continues. Without more detailed studies of specific states over defined periods, it is unlikely that we will achieve a consensus on exactly how it contributed to modern state development. This collection has not taken us nearer to that consensus, rather it suggests that we must widen the net and try to understand these states in the context of commercial networks that are local, regional, national and international, as well as competitive and collaborative.

The Contractor State Group intends continue its fruitful research activity in the future. It would have been impossible to get this far without the generous support of sponsors. They have supported the conferences and the dissemination of the results. We are particularly grateful to the Gobierno de España (Ministerio de Ciencia e Innovación) and the University of Las Palmas for all the assistance they provided in latest congress at Las Palmas and the publication of the papers.

Bibliography

BOWEN, H.V. and A. GONZÁLEZ ENCISO, (eds.) (2006). *Mobilising Resources for War: Britain and Spain at Work during the Early Modern Period,* Pamplona: EUNSA.

BREWER, J. (1989). *The Sinews of Power: War, Money and the English State, 1688-1783,* New York: Knopf.

CONWAY, S. and R. TORRES SÁNCHEZ (eds.) (2011). *The Spending of the States. Military expenditure during the long Eighteenth Century: patterns, organisation and consequences, 1650-1815*, Saarbrücken: VDM Verlang.

KNIGHT, R. and M. WILLCOX (2010). *Sustaining the Fleet: War, the British Navy and the Contractor State*, Woodbridge: Boydell Press.

PARROTT, D. (2010). "From Military Enterprise to Standing Armies: War, State and Society in Western Europe, 1600-1700", in TALLETT, F. and D.J.B. TRIM, (eds.), *European Warfare, 1350-1750,* Cambridge: CUP, pp. 74-95.

TORRES SÁNCHEZ, R. (ed.) (2008). *War, State and Development.Fiscal-Military States in the Eighteenth Century*, Pamplona: EUNSA.

TORRES SÁNCHEZ, R. (2008). "The Triumph of the Fiscal-Military State in the Eighteenth Century. War and Mecantilism", in TORRES SÁNCHEZ (ed.), pp. 13-44.

Supplying the belligerent countries. Transnational trading networks during the Napoleonic Wars

1

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About a hundred years ago the well-known German Historian Gustav Schmoller remarked that the history of eighteenth-century trade was actually a history of smuggling (Schmoller, 1898: 18). This statement certainly applies to the period of the Napoleonic wars, when at times legal trade with the continent or with America was hardly possible. However, the concept of smuggling does not describe the events fully, for the Napoleonic Wars were essentially a commercial war in which all social classes, from the highest to the lowest, were involved. It was an economic war in which clandestine trade became an essential weapon among the belligerent parties. Given the frequent wars of the century the commercial classes had acquired a certain habit of circumventing embargos and trade restrictions. During the long warfare against Napoleon covert trading practices reached previously unknown geographic and economic dimensions and even did not prevent the two antagonist powers from secretly trading with each other.

The volume and scale of covert trade cannot sufficiently be explained by the long duration of the wars alone. A couple of factors played a decisive role. The global dimension of the wars, which has been highlighted in recent literature (Förster, 2010; O'Rourke, 2005; Bell, 2007), and its worldwide economic impact affected the scale of clandestine trade. It operated within this framework. Another at least equally, if not more important factor, was the transnational interconnectedness of trade and people. Since the late seventeenth century the European countries had become increasingly dependent on foreign supplies. Masts, timber, bar iron, naval stores, textiles and other commodities were shipped from the European continent including Russia to the New World and vice versa; colonial goods were shipped from the west to the east. In addition,

growing areas and processing or consumption regions had developed in different directions. While coffee, sugar or tea were cultivated in the tropical regions, they were predominantly processed and consumed in Europe. This far-flung trade was organised and financed by a commercial elite whose composition and outlook was international and cosmopolitan. Its members have been termed 'Weltbürger' (Meinecke, 1911) or 'Citizens of the World' (Hancock, 1995) because family and friends had settled in important international entrepôts of the early modern period to organize and control the far-flung trade. Besides family and kinship merchants relied on expatriate communities which had emerged since the seventeenth century. Expatriate merchant communities and factories existed in more or less all important entrepôts and port cities. Such merchant communities existed in the ports of the Atlantic, the Baltic and the Mediterranean. They represented nodes within wider commercial networks interconnecting economic areas which had previously been unconnected or only loosely connected. Ports like Bordeaux, Cadiz or Leghorn, to name only a few, were gateways to the non-European world and thus connected Europe with the non-European world. These well-established social and economic networks were threatened by the French and Napoleonic wars and the ensuing embargos and blockades. However, not only the private sector was affected by the trade disruptions but also the states. Embargos and blockades were deployed by the belligerent countries to weaken the enemy and create shortages of supplies by intercepting the foreign trade (Davis/Engerman, 2006: 1-23). The affected states tried to counteract the effects by employing military, political and economic strategies, of a more or less illegal nature, to secure the necessary supply of the country.

Britain's rise in the eighteenth century had essentially been dependent on its ability to import vast amounts of goods like masts, timber, bar iron, naval stores, textiles and other commodities which it needed for its navy and industrialisation as well as its colonies. Besides these raw- and semi-finished goods Britain had turned from a grain exporting country into a grain importing one in the second half of the century. Severe harvest failures in the 1790s as well as in the first decade of the new century contributed to a steep rise in grain demand (Galpin, 1925). During the long wars Britain therefore faced the threefold task of organising the supply for the navy, sustaining trade and industry and feeding the population while facing blockades and trade disruptions. These undertakings were closely interlinked. Backed by a powerful navy and an enterprising commercial elite Britain made rigorous efforts to keep up commercial relations and secure the supply. In its efforts Britain was advantaged by a commercial

elite whose composition was decidedly international. About two-thirds of the London merchant elite, who more or less organized and financed a worldwide trade, were of continental birth or descent (Chapman, 1992). The members of the commercial elite often kept up close trade and family relations with their old home countries and therefore made every effort to sustain relations despite the wartime economic restrictions. In other words Napoleon's continental system did not only interrupt well-established trade links but also separated friends and families und thus drove merchants on the continent into the arms of Britain. According to Vincent Nolte, a German merchant born in Livorno, Napoleon was universally regarded as the 'deadly foe of all commerce' (Nolte, 1936: 40). Besides depriving all classes of the new and highly valued luxuries and amenities such as sugar or coffee, he also endangered the livelihood of all those involved in foreign trade. Many did not like the British either. For the American Captain George Coggeshall the only difference between the two rivals was that the one was a 'land robber' while the other was a 'sea robber' (Cogeshall, 1852: 64). Merchants abroad condemned Britain's rigorous privateering practices and disregard for neutrality. Nevertheless access to the Empire's financial and economic markets and the naval pressure of the British government on the private sector for its needs to secure the country's supply drove merchants into the hands of the British government. On the other hand the government relied on the private sector to organize and finance the supply. As Roger Knight and Martin Wilcox have shown in their recent study the relationship between the between private merchant contractors and the Victualling Board was highly efficient (Knight/Wilcox, 2010). Employing the private sector saved costs and they could purchase on markets closed to the government. These aspects equally apply to the foreign trade sectors as a whole during the Napoleonic Wars. To pressurize native as well as foreign merchants to serve the needs of the country, the government began to issue shipping licenses which allowed trade in contraband goods, even trade with the enemy under the protection of the Navy. Although the licensing system did not work smoothly and even licensed ships and goods were sometimes captured by the British navy and privateers, it became a powerful instrument in the hands of the British government for getting merchants on its side.

So far research on the Napoleonic Wars has paid only partial attention to the working of the licensing system. The licences were an important source for Freeman Galpin's (1925) study of the grain trade, for Frank Melvin's (1919) work on the failure of Napoleon's continental blockade and seaborne trade, and for Eli Heckscher's (1922) research on the corruption and smuggling practices during the wars. The most intensive

use of these licenses was made by François Crouzet (1958) more than fifty years ago, but a comprehensive study on the working of the licence system is still missing. The central objective of the abovementioned authors was to evaluate the economic impact of the Wars. The aim of this paper is less ambitious; it elaborates the strategies deployed by Britain to secure the country's supply. It focusses on the licence system and the strategies to which European merchants resorted to organize long-distance trade despite the blockades and to delineate how this system intensified international collaboration including the belligerent parties.

1. The licence system

The system of licensing goods and ships during wars to carry contraband and forbidden goods to blockaded ports was not new and Britain was not the only country that resorted to this practise during the Napoleonic Wars. Spain as well as France also introduced it, but without the scale and duration of the British system.

The outbreak of war between Britain and Spain in 1796 forced Spain to throw its colonies open to neutral merchants and introduce a licence system to supply its colonies in America with food and other essentials. Licences were issued to neutral powers in the Caribbean authorizing trade with enemy colonies.[1] The outbreak of war between the two countries caused a considerable redirection of the traditional trade routes. Goods used to be shipped via Cadiz and Seville to the Spanish colonies, but as Britain blockaded access to the colonies, the bulk of the trade was redirected via North America and American ships became important carriers to the Spanish and British colonies. During the short peace time the licence system lapsed, but was revived after the renewal of war and continued until 1808. From 1804 onwards, agents were accorded the right to sell licences from the Spanish Court in order to ship goods across the Atlantic for the account of the Spanish government and return with bullion to Europe. These licences would in many cases only be of value to the purchaser if accompanied by respective British licences to protect them from the British war ships and privateers.

1 For the Spanish licence system and the following remarks see explicitly Pearce (2007: 119-160).

France on the other hand only introduced licences at a rather late phase of the Wars. Pressure from its agrarian sector forced Napoleon to introduce licences in 1809-1810 allowing a limited export of grain and goods of French origin (Marzagalli, 1999: 117-143). The number of such licenses granted and the conditions for them were restricted and rather rigid, so that merchants across the Napoleonic Empire purchased them only hesitatingly. Joseph Pitcairn, the American consul in Hamburg, doubted if they were of any value without accompanying English ones.[2]

About the same time as Spain, that is about 1797, Britain introduced its licence system. These licences are a very rich source of information about the merchants who organized the clandestine trade with neutral and also enemy countries. In size and volume the records comprise several hundreds of volumes. Unfortunately, information on them is dispersed throughout various records of the government, Board of Trade and Admiralty. For certain geographical areas of Britain's foreign trade the number of licences are difficult to assess. The East India trade hardly figures in this source. The Atlantic trade is difficult to evaluate because in many cases only the ships and the masters are named, but not the merchants. Moreover the licence system was frequently changed depending on the political and military situation. New commodities and new trading routes came under licence, while others were given up. Until Napoleon's Berlin Decree in December 1806 and the following Orders in Council issued by the Government in London the number of licences were comparatively low, but they rose steeply from then on. They rose from 849 in 1806 to 1491 in 1807 and continued to jump until 1810.[3]

The rapid increase overburdened the Privy Council and the Government. Thus from 1807 onwards, they became shorter and more general. Licences were no longer issued just for one voyage and one ship only, but for a certain period and several ships.[4] They were also issued not only for one merchant but several. Even foreign merchants could acquire them. The majority of licences were probably granted by the Privy Council in London, but agents abroad like Admiral Saumarez in the Baltic also

2 Taylor-Bourne Papers vol. 31, Joseph Pitcairn to Sylvanus Bourne Oct, 4, 1811 (Library of Congress, MS).

3 (Privy Council) PC 1, 3867 (The National Archives Kew).

4 They were granted in 1807 for six months and several voyages to Holland or were issued for 18 ships and more (e.g., PC 2/172: 426; PC 2/ 185: 559).

supplied merchants with licences. They were also issued locally in the Caribbean and on Malta (Ryan, 1968: 138; Desmond, 1996: 213; D'Angelo, 1990: 102).

A large part of the licensed trade was with the blockaded continent. It was conducted in neutral vessels often under German flags like the Papenburg, the Kniphausen, Hamburg or Prussian ones. Immigrant contractors like Wolff & Dorville provided them for the Victualling Board.[5] Although Americans were the largest neutral traders in the Caribbean, they had to face competition from merchants from the neutral European states, particularly from Sweden, Denmark and especially from Hamburg. They traded via the Danish or Dutch entrepôts of St. Thomas or Curacao. A considerable part of the trade in British goods to the Spanish colonies was also shipped from Hamburg in the 1790s. A contemporary observer suggested that in September 1797 more than 40 ships were leaving Hamburg for St. Thomas and thence to the Spanish colonies. Three or four ships left for Havana, many of them operating under Spanish or British licences (Pearce, 2007: 201f.).

Due to mercantile pressure and the ongoing war on the continent the British government also began to issue licences for the Spanish colonies on a wide scale early in 1806. During the two years from 1806 to 1808 the government issued 277 licences for importing and exporting goods to Spanish America.[6] They were issued for neutral ships leaving or touching neutral ports such as Lisbon or Hamburg.

The success of the secret commercial operations depended on international cooperation on both sides of the blockade. Trustworthy partners were needed to supply vessels and flags to ship the goods beyond the blockaded lines and there again trustworthy partners were needed to deliver the goods to the end user. F-connections, i.e. family and friends, provided the backbone of the illicit trade. Family and trustworthy partners in distant parts of the world were also the backbone of one of the biggest commercial and financial operations during the Wars.

5 ADM 20/310 1796-97 (The National Archives Kew). I thank Roger Knight and Martin Wilcox for referring me to this source.

6 Pearce (2007: 217 f.); his figures vary on p. 246 he refers to only 230 licences.

2. The Hope and Baring operations

Under the cover of the licence system one of the most spectacular financial operations was organized by an international consortium of French, Dutch, German, American and British merchants and bankers.

Under the 'Treaty of Subsidies' of October 1803 Spain had to pay huge sums of money to France (Buist, 1974: 284). There was little silver in Spain and in order to fulfil its obligations it had to turn to its Mexican treasuries. The British were, however, blockading the Atlantic so that Spain remained in default. The alarming deficit of the French Treasury was increased by the preparations for an assault on Britain in 1804, so that the French minister Barbé Marbois turned to the French Banker Gabriel Ouvrard. The plan to organize the secure transfer of bullion from Mexico, which involved the abovementioned international consortium, was initiated by Ouvrard. In 1804/5 he turned to Hope & Co in Amsterdam, the world's leading bank at that time. Hope & Co was to cash Spanish royal bills of exchange against Mexican bullion und organize the transport to Europe. For that purpose Hope & Co received a large number of Spanish licences permitting neutral vessels to sail to the Spanish colonies.[7] For security reasons the business was to be routed via the United States of America and the moneys were to be exported under American flags and on American account (Nolte, 1854: 79).

As the British were blockading the Atlantic, they could not hope to get access and remit bullion without British cooperation. Hope & Co therefore turned to the Barings in London, to whom they were related by marriage. Although the idea of ultimately financing Napoleon's army was, in essence, highly objectionable to the British government, the Barings persuaded the Prime Minister William Pitt to consent to the plan after months of hesitation and negotiations. British motives for cooperating in the project are not immediately apparent. Although Britain also suffered from a shortage of silver coins, the transport of bullion was not the primary motive, for probably about four-fifths of the Mexican bullion was destined via Britain for re-export to France and Spain (Buist, 1974: 324). Buist and Pearce therefore suggest that the most convincing explanation lies in the commercial dimension. Given the decline of re-exports

7 Buist (1974: 294); Hope & Co received 50 licences for a similar number of expeditions to the Spanish colonies.

to the continent the government saw a prospect of selling large quantities of British goods in the Spanish colonies (Buist, 1974: 324; Pearce, 2007: 204). In his reminiscences Vincent Nolte remarked that although about 14 Million piastres were taken from the Mexican treasury and sent to England, the far greater part of the whole transaction was involved in the commodity trade (Nolte, 1854: 78).

The inner core of organizers consisted, besides Hope & Co, the Barings and Ouvrard, of three other merchants of German and French birth. They were all more or less intimately connected before the operation started. David Parish and Vincent Nolte were to organize the American part of the operations. Parish was the son of a Scottish merchant who had settled in Hamburg in 1756. His father, John Parish, had been appointed American consul in 1790. After the outbreak of war between Britain and France he had held a contract with the British Admiralty to deliver goods and men to the West Indies in the 1790s (Ehrenberg, 1925: 44, 67-74; Schnurmann, 2011: 159f.). At the time Hope and Baring were deliberating the plans David Parish had opened a house in Antwerp. Relations with Hope or Baring probably date back to the parental house in Hamburg.

Vincent Nolte, another partner, was born in Leghorn but of Hamburg descent. His father had been a schoolmate of Alexander Baring. At the time Ouvrard approached Hope & Co in Amsterdam, Vincent Nolte was working in the house of Labouchère & Trotreau in Nantes. A.M. Labouchère of Nantes was the brother of one of the leading partners in the house of Hope & Co. Both were sent to the States. Parish settled in Philadelphia and Nolte in New Orleans.

Another important partner in the operations was Armand de Lestapis. He was a Frenchman and had worked in a Spanish house in Santander before he became a clerk in the House of Hope & Co.[8] He settled in Vera Cruz to present the bills of exchange and get them cashed. He also had to overview the sale of goods in Veracruz and sees the returns shipped to North America. For security reasons Lestapis was to pass as a Spaniard and he assumed the name of José Gabriel de Villanueva (Nolte, 1854: 98). Besides the inner group of organizers a number of American merchants were involved in the operations. Of the Americans Archibald Garcie and above all Robert and John Oliver, two Irishmen who had settled in Baltimore, and their

8 Buist (1974: 296); Lestapis was the Spanish correspondent at Hope & Co in Amsterdam.

brother-in-law James Craig in Baltimore, came to play a prominent role. Nor were they strangers either to Hope & Co or to the Barings when the scheme was planned.[9]

The operation required utmost secrecy and was run under Spanish as well as British licences. At an early stage of the plans Ouvrard had obtained 500 blank licences from the Spanish government. Some of these licences he handed over to Hope & Co for vessels that were to trade with Vera Cruz. To reduce the risk of British privateers the Barings acquired British licences for neutral vessels.[10] When Parish arrived in the States in January 1806 he brought with him 50 blank licences and bills of exchange of about 5 Million pesos (Pearce, 2009: 1334; Walters, 1944: 151f.). Nolte had also received some licences to employ ships from New Orleans to Vera Cruz. His principal partners in New Orleans were Amory & Callender and Geo T. Phillips. For the sale of the goods in Vera Cruz Villanueva engaged the two local firms of Francisco de Septien and Pedro de Echeverria in Vera Cruz (Pearce, 2009: 1335).

Parish limited himself to overviewing the business. The bulk of the trade with Mexico between 1806 and 1808 was undertaken by the Olivers, to whom Parish had signed over the majority of the commercial licences. They probably sent more than thirty-eight ships to Vera Cruz, the value of the sales running up to $ 3 million during the first two years. The goods shipped to Mexico by them mostly consisted of British and German textiles (Pearce, 2007: 205-6; Buist, 1974: 296). In return Villanueva sent the bullion from Vera Cruz to North America to be sent with colonial goods like sugar, coffee, cotton or tobacco to Europe (Buist, 1974: 320). In Vera Cruz Villanueva handled some seventy vessels altogether. He arranged the sale of the incoming goods with two big merchant houses in Veracruz in return for a commission of 5 per cent (Nolte 98). According to Vincent Nolte the net value of the imported cargoes was about $ 1,200,000.

From late 1807 onwards trading conditions became increasingly difficult due to growing competition in the bullion trade, the aggressive policy of the Royal Navy, and the embargo law passed by the US government in 1807. Finally, the political revolution in Spain in May 1808 followed by a refusal by the colonies to cash any

9 About the earlier connections between the Olivers Barings and Hope see Bruchey (1956: 252-254). Via Craigs brother-in-law, a Spaniard, they had excellent connections to the Spanish government, Bruchey (1956: 265).

10 Crouzet (1987: 181-183); Lasky (1972: 8); Buist (1974: 311 f.); Pearce (2009: 1327, 1331).

further treasury bills, put an end to the operations (Pearce, 2007: 207; Nolte, 1854: 136). The growing competition originated partly from an outright contraband trade with Very Cruz and partly from Spanish officials who sold trading licences to British merchants. In the bullion trade Gordon & Murphy and Reid Irving & Co became two big rivals. They had negotiated a contract with the Spanish government and also signed a contract with the Board of Treasury to ship 10 million piastres to Mexico.[11] Moreover the British government permitted them to ship goods for the Spanish government and royal Spanish correspondence to Vera Cruz. Their ships sailed under the protection of Spanish and British licences (Pearce, 2007: 210).

Most of the trade was done in neutral vessels under American flags, but also under Portuguese and Hamburg flags (Pearce, 2007: 211). Although they carried licences which were supposed to protect the ships from British privateers, ships were seized. The Olivers, for example, had six ships seized between November 1806 and September 1807. Gordon & Murphy had at least five vessels taken by British cruisers (Pearce, 2007: 211, 226, FN 113). For safety reasons British war ships were also employed. Thus, at the request of Francis Baring in May 1807, a British frigate was sent to Vera Cruz to collect bullion on behalf of the group. It was not the only warship that was sent to the Mexico to export bullion and silver. Pearce counted five warships which exported bullion amounting to £2,255,134 from Vera Cruz between December 1806 and March 1808 (Pearce, 2007: 213).

Given the growing competition and the worsening of the trading conditions caused by the American Embargo, David Parish and the Olivers had begun to wind up the agencies in Vera Cruz and New Orleans. Before the operations came to an end in 1808 Hope and Baring sent Vincent Nolte on a special mission to Havana. He was to exchange bills to the value of $ 700,000 which were drawn by the Spanish Minister of Finance (Nolte 1934: 153). It was arranged that they were to be paid in silver only. However, since communications with Mexico had been broken off, Cuba was short of silver dollars and at first refused to cash the bills in silver. By a clever move Nolte succeeded in getting the silver. He persuaded the Intendant of Havana to have the bills sent by him, Nolte, to their correspondents in Vera Cruz, and exchanged (Nolte, 1854: 117-124). The profits arising for Hope & Co from that adventure amounted to little less than $184.000.

11 The house of Gordon & Murphy was established in London in 1802. Members of the Murphy family lived in Spain and Mexico. For the two firms see explicitly Pearce (2007: 208-214).

The activities finally ceased with the Revolution in Spain. However, the whole business was not concluded until 1811. The gains arising were considerable, although the total net gains cannot be valued because the gains derived from the trade in goods cannot be assessed. Nolte suggests that the profits amounted to £863,250 Sterling, the earnings of Hope & Co and the Barings not included (Nolte, 1854: 173). Pearce suggests that the total amount derived from the operations were considerably higher (Pearce, 2009: 1347). The gains of the Olivers alone from the Vera Cruz trade between mid-1806 and 1808 amounted to $775,000 besides the earnings from the goods they sold (Bruchey, 1956: 262, 327 f.). Impressions of the profitability of the whole operation cannot only be gained from the big players. Even for small traders the business was highly lucrative. The shipmate and later captain William Coggeshall, who sailed for Vincent Nolte, the Olivers and Archibald Gracie to Vera Cruz, remarked that the voyages were not only extremely successful for the owners but also for the whole crew. On his first voyage on the *Hamilton* he had already made a profit of 150% from a small cargo of this own and on the several voyages made for the owners he was *'making money very fast'* (Coggeshall, 1852: 41, 49-51, 53).

Conclusion

The operations of the consortium were certainly one of the most spectacular secret collaborations during the Napoleonic Wars. Like the Hope & Baring consortium —only on a less spectacular level— thousands of merchants collaborated across national borders and commercial barriers to circumvent the trade restrictions of the belligerent nations. Britain issued between 60,000 and 100,000 licences to support merchants in the struggle to keep up trade. The need to work undercover across borders intensified cooperation beyond national lines. The international composition of the consortium was characteristic of thousands of smaller transactions in the shadows of the blockade. The licence system does not only shed a new light on the density of the international trading networks but also on the relationship between commerce and politics.

The British licence system did not work smoothly and merchants could not absolutely rely on the protection of the royal navy. Nevertheless it worked more efficiently than those of the other two nations. Spanish licences could not be trusted, because personal relationships with influential politicians and bribery were more valuable than any

piece of paper.[12] The French permits were not valued because highly unattractive conditions were linked to them. Moreover, given the power of the navy the licences of both nations were of no value without corresponding British permits. The British ones did not guarantee absolute protection for various reasons: First, contraband and licensed goods were transported on the same vessel. Secondly, the captains of the British cruisers were aware that they could not rely on the authenticity of the documents, for vessels frequently had papers and flags of several nations on board. In London forgers had found a lucrative business providing the appropriate papers required by the customers. Thirdly, the privateers' greed also has to be taken into account. Despite these limitations British licences were eagerly sought after by merchants of all nations (Bruchey, 1956: 319-326). Fourthly, to keep up trade under unfavourable and even adverse conditions was often a question of survival. The number of failures among merchant businesses leaped to previously unknown heights. Those who could afford to do so stopped trading or, like John Jacob Astor or David Parish, started to speculate in estates – a less risky but equally profitable business.

The extensive issuing of licences to native as well as foreign merchants and the protection of the Navy was a powerful strategy to counteract Napoleon. Without the collaboration of merchants of various nationalities the British licences system would not have been so successful or contributed to Britain's hegemony at the end of the wars. It also sheds a new light on the relationship between politics and commerce. Moreover, the secret trade also allows some new insight into the resilience and strength of merchant networks. Napoleon's failure to disentangle the European and Atlantic markets can be attributed to his false evaluation of the already strong interconnectedness of the international markets. On the whole he not only failed to disconnect the continent from Britain but instead fostered a widespread international undercover collaboration, which ultimately paved the way for the integration of the European and non-Europeans markets during the nineteenth century.

12 Bruchey (1956, 264); Coggeshall mentions that the *Centurion* was only searched for contraband goods on her second arrival at Very Cruz, because the consignees had not paid "a fair compensation" to the custom officers on her first voyage despite having a licence (Coggeshall 1852: 42).

Literature

I. Primary Sources

Admiralty Papers, ADM 20/310, 1796-97 (*The National Archives Kew*).
Privy Council, PC 1: 3867; PC 2/172, PC 2/ 185 (*The National Archives Kew*).
Taylor-Bourne Papers, vol. 31 (*Library of Congress*).

II. Secondary Sources

BELL, D. A. (2007). *The First Total War. Napoleon's Europe and the Birth of Warfare As We Know It*, New York: Houghton Mifflin Company.
BRUCHEY, S.W. (1956). *Robert Oliver, Merchant of Baltimore 1783-1819*, Baltimore: The John Hopkins Press.
BUIST, M.G. (1974). *At Spes non Fracta. Hope &Co. 1770-1815*, The Hague: Martinus Nijhoff.
CHAPMAN, S. (1992). *Merchant Enterprise in Britain. From the Industrial Revolution to World War I*, Cambridge: Cambridge University Press.
COGGESHALL, G. (1852). *Second Series of Voyages to Various Parts of the World, Made between the Years 1802 and 1841*, New York: B. Appleton & Company.
CROUZET, F. (1987). *L'Economie Britannique et le blocus continental*, Paris: Economica.
D'ANGELO, M. (1990). *Mercanti inglesi a Malta 1800-1825*, Milano: Franco Angeli.
DAVIS, L.E. and S. L. ENGERMAN (2006). *Naval Blockades in Peace and War. An Economic History Since 1750*, Cambridge: Cambridge University Press.
DESMOND, G. (1996). *Malta, Britain and the European Powers, 1793-1815*, Madison/ London: Associated University Presses.
EHRENBERG, R. (1925). *Das Haus Parish in Hamburg*, Jena: Gustav Fischer (2nd ed.).
FÖRSTER, S. (2010). "The First World War: Global Dimension of Warfare in the Age of Revolutions 1775-1815", in CHICKERING R. and S. FÖRSTER, *War in the Age of Revolution*, Cambridge: Cambridge University Press.
GALPIN, W. F. (1925). *The Grain Supply of England during the Napoleonic Period*, New York: Macmillan & Company.
HANCOCK, D. (1995). *Citizens of the World. London's Merchants and the Integration of the British Atlantic Community 1735-1785*, Cambridge: Cambridge University Press.

HECKSCHER, E.F. (1922). *The Continental System. An Economic Interpretation*, Oxford: Clarendon Press.

KNIGHT, R. and M. WILCOX (2010). *Sustaining the Fleet, 1793-1815. War, the British Navy and the Contractor State*, Woodbridge: Boydell Press.

LASKY, H. (1972). *David Parish: A European in American Finance 1806-1816*, PhD: New York University.

MARZAGALLI, S. (1999). *Les boulevards de la fraude. Le négoce maritime et le Blocus continental 1806-1813*, Paris: Septentrion.

MEINECKE, F. (1911). *Weltbürgertum und Nationalstaat; Studien zur Genesis des deutschen Nationalstaats*, München: Oldenbourg Verlag.

MELVIN, F.E. (1919). *Napoleon's Navigation System*, New York: AMS Press.

NOLTE, V. (1854). *The Memoirs of Vincent Nolte or Fifty Years in both Hemispheres*, reprint New York 1934: G. Howard Watt.

O'ROURKE, K.H. (2005). *The Worldwide Economic Impact of the Revolutionary and Napoleonic Wars*, DEPR Discussion Paper Nº 5079.

PEARCE, A. (2009). *The Hope-Baring Contract: Finance and Trade Between Europe and the Americas, 1805-1808*, English Historical Review 124, 1324-1352.

PEARCE, A.J. (2007). *British Trade with Spanish America 1763-1808*, Liverpool: Liverpool University Press.

RYAN, A.N. (1968). *The Saumarez Papers. Selections from the Baltic Correspondence of Vice-Admiral Sir James Saumarez*, London: The Navy Record Society.

SCHMOLLER, G. (1898). *Das preußische Handels- und Zollgesetz vom 26. Mai 1818 im Zusammenhang mit der Geschichte ihrer Zeit, der Kämpfe und Ideen*, Berlin.

SCHNURMANN, C. (2011). "A Scotsman in Hamburg: John Parish and his Commercial contribution to the American War of Independence, 1776-1783", in M.A. DENZEL, J. de VRIES and P. R. RÖSSNER (eds.). *Small is Beautiful? Interlopers and Smaller Trading Nations in the Pre-Industrial Period*, Stuttgart: Franz Steiner Verlag.

WALTERS, P.G. and R. WALTERS, jr. (1944). "The American Career of David Parish", in *Journal of Economic History* nº 4: pp. 149-166.

Trading with the enemy. British private trade and the supply of arms to India, c. 1750–1820

2

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The narrow aim of this essay is to reconstruct the ways in which British-made arms found their way to India during the period under review, not just through official channels to support the East India Company and its increasingly large private army but also by way of illegal transfers which served to supply the enemies of the Company and, by extension, the British state. The essay thus illustrates, in the form of a case-study, the main theme of a wider project which is that Britain's trade with Asia was always a complex multi-channel transoceanic trade. The durability, sophistication, and diversity of this trade has largely escaped the attention of historians who have focused narrowly on the monopoly trade of the East India Company as if it represented the only commercial conduit through which commodities and silver could pass to and from the East.

The wider project seeks to revise the conventional view, currently firmly embedded in the literature, of an East India trade that was heavily unbalanced in favour of Asiatic imports into Britain, especially tea, textiles, and luxury goods. Indeed there is currently a scholarly preoccupation with luxury goods and chinoiserie, mainly because important work is being done on how such objects altered patterns of consumption, display, and imitative production in Britain. But little attention has ever been paid to the cheap, disposable, functional, and practical commodities known as '*gruff goods*', which formed a large proportion of the cargoes carried to and from Asia. Indeed, it is often asserted that British exports to Asia were of comparatively little volume or value, primarily because it is thought that was little Asiatic demand for European manufactures. What this essay shows, however, is that there was in fact a voracious Asian demand for some types of British commodities such as weapons, armaments, and military stores which

were strongly represented within a portfolio of export goods which also included glass, ironware, marine stores, machinery, instruments, and so on. The essay argues that this demand drew British merchants and manufacturers into extended commodity chains which linked provincial producers to both sides of military conflicts being fought out on the Indian subcontinent. In short, by looking through a broader lens at the East India trade, it is possible to argue that the trade came to be as much about cannons, guns, and other forms of military hardware as about fine goods and luxuries.

The trade examined here represented a large-scale transfer of military technology, knowledge, and expertise from West to East. To be sure, it was not sufficient to enable indigenous powers to stem the British advance in the long-term, but it certainly strengthened some powers —the best example being the Mysore state or kingdom of, first, Haidar Ali and then his son Tipu Sultan— to the point that they were able to compete very effectively indeed for local supremacy. The establishment of the Company Raj was not the walk-over that is sometimes depicted in literature which can imply that large, poorly led, ill-disciplined, and badly equipped Indian armies were almost contemptuously rolled over by smaller British forces. Ironically, it was the possession and use of British-made arms by some of the most effective Indian armies that stiffened resistance and led to the long-term, semi-permanent conflict that characterised warfare in certain theatres.[1] This raises an important and perhaps neglected issue related to the actions of contractors —in this case British merchants— who traded with the enemy —in this case the states that were in conflict with the East India Company and British Crown forces in India—.

It is evident in much of the research undertaken by the *Contractor State Group* that private sector interests were closely aligned to those of the states in which merchants and manufacturers were located, and that alliances of mutual benefit underpinned a unity of national purpose during times of war. Major European states and economies were in competition with one other and trading directly in arms with the enemy would have been widely condemned as a deeply unpatriotic act, so much so that very few firms or companies were likely to have risked their reputation in the search for profit. As a result, there does not appear to be any evidence of British merchants selling munitions directly to rival powers in times of war, although, as Pierreck Pourchasse shows

1 On the effectiveness of resistance based upon innovation and modernisation as practiced by Mysore and the Maratha Confederacy, see Roy, Kaushik (2009: 62-107).

in his essay in this volume, French naval capability was enhanced by an ability to procure a large number of masts from British agents in the Baltic region. Beyond the formal great power conflict in Europe, however, the situation was less clear-cut and in some instances arms and ammunition were sold in great quantities to forces ranged against British interests in the wider world. This raises the possibility that supply chains and contractor relationships centred in Britain were constructed in ways that ultimately ran counter to national interests, and that in some circumstances Britons were prepared to engage in trading activity that posed a very real threat to the lives of their fellow countrymen. It suggests that notions of patriotism within the commercial community were quite tightly defined within European terms of reference, and that in certain circumstances individuals were prepared to set aside moral scruples of the type that might have prevented them from selling arms to the French or Spanish. This was especially so in wars fought in India in because no formal declarations of war were made by the British Crown against Indian states, and even though regular forces were increasingly used on the subcontinent in support of British interests, those interests were upheld primarily by the East India Company, a private trading organisation. As a result, for some commercial actors who operated beyond Europe, long-distance trading with an enemy was part and parcel of their everyday business life, and they sought to maximise the opportunities that arose from armed conflict around the world. Indeed, it is perhaps possible to suggest that through the actions of unscrupulous British private merchants variant models of the contractor state were being created in India. Indian powers such as Mysore and the Maratha Confederacy were heavily dependent upon the external supply of arms, and they were able quite effectively to tap into the resources of the imperial nations with which they were competing. Clearly the eighteenth-century arms trade flowed across imperial boundaries, and there was very little that the metropolitan authorities could do to prevent this from happening.

1

Of course, at the core of Britain's East India trade was the trade conducted on the East India Company's own account and it was through this official channel that a very substantial amount of military goods was procured in Britain and then exported to the Presidencies of Bombay, Madras, and, above all, Calcutta. Such exports did not include guns and military stores that were destined for sale in India but rather such

equipment that was necessary to sustain an increasingly large military establishment on the subcontinent. Only very rarely did the Company trade in guns, as happened in 1765 when it undertook a voyage to Angola and exchanged guns for slaves who were then shipped on to the Company's plantations at St Helena and Bengkulu; although pistols and swords were often sent as gifts to local rulers. Instead, it was the East India Company's creation and build-up of a sophisticated military machine in India after 1756 that generated strong and sustained demand in Britain for guns, equipment, uniforms, and foodstuffs. As small garrisons whose primary function was to defend fortified coastal trading stations gave way to large standing armies capable of operating far inland against Indian and European rivals, the Company became what was described as a *'fighting company'*. In the mid-eighteenth century Company forces amounted to no more than a few hundred men, but the struggles against the French and the conquest of Bengal after 1756 saw the rapid growth of the Presidency armies, especially the Bengal army, and as a result an increasing volume of military stores was shipped into India on board East Indiamen. Moreover, after 1781 the Company was obliged by an Act of Parliament to supply the regular forces that were now stationed in India on a permanent basis. Here, of necessity, empire was very heavily dependent upon the lifeline provided by the Company's commercial system because without the existence of a permanently established supply chains organised over extended lines of transoceanic communication, the Company's forces could not have functioned effectively for any great length of time at all. As a result, supply of the Company's Indian garrison was woven into the very heart of the export trade, which in turn gave rise to a particular web of commercial connections within the domestic economy. This was because the need to procure goods of a certain type and standard on a regular basis led to the creation of an extended group of favoured suppliers located in London and different parts of Britain. A large number of manufacturers and merchants became, in effect, permanent contractors for the Company's three Indian armies, and many of them drew very considerable benefit from their business dealings with the Company.

Unfortunately, for methodological reasons it is difficult to establish very precisely the volume and value of the arms, equipment, and stores that underpinned Company's burgeoning military strength; and thus one cannot estimate the proportion of overall exports that was destined for use by the Presidency armies. This is because until 1814 all military items were allocated to the ledger or account heading '*General Merchandise*', and thus purchases of arms and stores were routinely recorded alongside items destined

for sale or use by the Company's employees in Asia. This unhelpful scheme of arrangement can be seen in the *Appendix*, which lists all general merchandise purchased for export by the Company during the accounting year 1 July 1789 to 30 June 1790. The Appendix highlights items that were very obviously destined for use by the Company's forces, although clearly there are further categories of commodities —tents, blankets, flags, canvas, pork and beef, and so on— which in all likelihood were also to be used by the army. If the large *'one-off'* consignment of tin that was allocated to '*General Merchandise*' is discounted, it can be calculated that in 1789-90, 40.7 per cent (£36,988) of the general merchandise was definitely intended for use by the Company's armies or Crown troops, with a further 11.1 per cent (£10,070) likely to have been purchased for the same reason.[2] But the manner in which the Company organised its ledgers and accounts makes it very difficult and time-consuming to extract details of military-related transactions. What can be calculated is that between 1760 and 1814 the total invoice value of exported '*General Merchandise*' was £11,445,465 and this represented 15.5 percent of the value of all exported goods, with alterations to the annual average moving through peaks and troughs which more or less corresponded with periods of war and peace.[3] As can be seen from specific evidence from 1799-1800, annual expenditure on military and naval stores could be much higher in times of war, and in that year when the Company was confronting both Tipu Sultan on land and the French on sea outgoings reached £279,750.[4]

For the years after 1814, however, it is possible to be more precise because the ledgers were reorganised and commercial accounts were now separated from those of a '*territorial and political*' nature. In the twenty years after 1814, the value of military stores exports averaged £384,787 a year, and for a while this figure represented between 10 and 15 percent of total Company exports. But, as the effects of opening up the East India trade to private merchants in 1813 were felt and as the Company's commerce then began to decline, the proportion of the overall value of exports that can be ascribed to military stores rose sharply, several times exceeding over half of the total

2 British Library, India Office Records (hereafter BL, IOR), Cash Journals, L/AG/1/5, vol. 23, *passim*. Tin was only temporarily allocated to *General Merchandise* in the accounts as attempts were made to resume exports to Asia. After 1789-90 it was allocated its own separate account heading in the ledgers and journals.

3 Figures and calculations based upon the commercial data to be found in Bowen, H.V. (2007).

4 BL, IOR, L/AG/1/5, vol. 25.

after 1826. Of course, the Company continued to trade with China until 1833, but by the 1820 almost all of the commodities carried to India on the Company's own account were military items of one sort another.

While it is not possible to be absolutely certain about the volume and value of military equipment exported by the Company, the '*Cash Journals*' reveal much about which merchants and producers were supplying items to the Company on a regular basis and it is clear that some of them held contracts over a very long period of time. It is also evident that well to the fore were some of the manufacturers who are well known to students of Britain's industrial revolution. So, for example, during the 1760s Theodosia Crowley supplied guns and anchors; Mackworth & Co supplied copper for brass ordnance during the 1770s and 1780s; Wilkinson & Co manufactured brass guns during the 1780s; Carron Company supplied huge quantities of shot and of course 'carronades' during the 1790s; and Richard Crawshay supplied iron guns.[5] Of course, this is not to imply that any of these firms developed only as a result of a crude form of export-led growth, but it is clear that significant East India supply contracts would have been prominent in the portfolio of orders to be found in some of the most important company books of the day.

Attempting to piece together the full extent of the orders met by any of these companies is a difficult task involving the aggregation of multiple transactions recorded over many years in the Company's ledgers and journals. Fortunately, though, as far as the Company's muskets, rifles, and pistols are concerned, such work has been undertaken by D.F. Harding in a remarkable four-volume study of small arms supplied to the East India Company between 1600 and 1858.[6] Perhaps unsurprisingly, this indicates that as the Company's army increased in size sharply after 1756 there was a very rapid increase in the export of muskets. Whereas only 500 muskets were shipped out to India in the 1756 season, 22,850 were dispatched in 1765 and 42,725 in 1768. Harding suggests that at least 576,587 muskets were exported for use by the Company between 1753 and 1800; and then between 1809 and 1829 a combined total of 699,059 muskets, carbines, fusils, and rifles were sent out.[7] In order to facilitate the regular supply of weapons of a standard pattern, the Company was by 1775 dividing its orders

5 Ibid., L/AG/1/5, vol. 17, p. 314; vol. 21, p. 224; vol. 22, pp. 350, 441; vol. 24, pp. 268-9, 275, 283, 289.

6 Harding, D.F. (1997-99: 4 vols.).

7 *Ibid*., vol. 1: 363-6.

between a small group of approved London gun makers who manufactured or purchased the component parts and then '*set up*' the Company's small arms and muskets in their workshops. Some setters-up supplied the Company for decades, and several received total career payments of over £100,000.[8] Prior to 1807 these men (and women) passed some orders on to those who produced barrels, locks, bayonets, and ramrods in the Midlands, but after that date the Company itself began to procure parts directly from source and it dealt regularly with groups of specialist manufacturers in Birmingham, Wednesbury, and Darlaston in Staffordshire, neatly illustrating how the economic effects of expansion in Asia were felt in some British provinces.[9]

The Company, then, built up a network of suppliers in Britain to sustain the development of its military role in India after 1750, but it should be noted that at times of difficulty when its convoys of East Indiamen were vulnerable to attack it was prepared to draw on alternative sources of supply from Europe. Thus, when maritime conditions became unsettled and the routine and rhythm of supply from London was disrupted the Danes at Tranquebar on the Coromandel Coast were swift to offer themselves as suppliers to the East India Company.[10]

2

The comments made so far about the East India Company are not in any way surprising because one would have expected a commercial organisation such as the Company to have been reasonably adept at meeting its own needs for large amounts of military equipment and supplies. Perhaps more surprising, though, is that a constant and very deep thorn in the Company's side arose from the fact British merchants —and indeed many of the Company's own employees in the maritime service— had no qualms about facilitating the supply of very large numbers of cannon, guns, small arms and ammunition to the Indian powers that were ranged against the British.

8 For a full list and details of almost one hundred 'setters up' of the period 1771-1856 see *ibid.*, vol. I: 293-304.

9 *Ibid.*, vol. I, pp. 44-6. For a full list of those who supplied musket parts to the Company after 1807 see *ibid.,* vol. I: 305-23. See also Bailey, De Witt and Nie, Douglas A. (1978).

10 Furber, H. (1951: 118-9).

This full extent of this problem was revealed when British forces led by Major-General Sir David Baird and commanded by General George Harris stormed Tipu Sultan's great fortress and citadel at Seringapatam on 4 May 1799. In doing so, they brought a bloody and final end to a series of wars with the rulers of Mysore that had lasted for over thirty years. A long-standing alliance between France and the most powerful of the Indian states was shattered, and Britain's position was transformed from one of considerable vulnerability into one of local supremacy. In the event, Britain's success proved to be short-lived but at the time the victory over Tipu was widely regarded, and enthusiastically celebrated, as a national triumph. Indeed, historians as well as contemporaries have represented the capture of Seringapatam as marking in various ways a decisive shifting in the balance of power, with the forces of Mysore decimated in a frenzy of slaughter and the great wealth of Tipu seized by the British. In particular, much attention has centred upon the great value of the army's prize money, which was estimated officially to amount to £1,143,216 but in fact was supplemented to a very considerable degree by extensive private looting and plundering conducted by Baird's troops.[11] Yet for all of the real and symbolic significance of the vast quantities of treasure and money seized during the sacking of Seringapatam, many within the Company were also preoccupied, if not shaken, by the capture of a very large arsenal of weapons.

It was not so much the huge number of weapons found to have been at Tipu's disposal that surprised Company officials, but the fact that so many of the guns and muskets had been manufactured in Britain, shipped to Asia on British-owned ships, and then sold to Tipu's agents by British merchants. As an official enquiry confirmed, the scale on which this trading with an enemy had been quite remarkable. Indeed, the full extent of such trading was never fully established because when an official inventory of the captured armaments was compiled the quantities of shot, gunpowder, and small arms were so considerable that only estimates could be made, and it was anticipated that even more such materials would be forthcoming as and when further hiding places and concealed stores were discovered. Nonetheless a systematic attempt was made to count and categorise the major pieces of ordnance that had fallen into British hands, and this revealed that a sizeable proportion of Tipu's military hardware had been of English manufacture. The enumerators led by Lieutenant-Colonel Laxon counted 78

11 For a good recent account see Jasanoff, M. (2005:167-96).

pieces of British-made brass ordnance, 12 heavy mortars, and 200 pieces of iron ordnance.[12] Taken together, this amounted to just over one-fifth of the heavy ordnance, the rest of which had been manufactured in France, Spain, Holland, or Tipu's own armouries. In addition, Laxon's searches revealed 15,000 British-made muskets alongside 37,000 manufactured in France and 17,000 in Mysore itself. As was revealed in the aftermath of the war, Tipu had developed the capacity to manufacture within Mysore a lot of the military hardware that he deployed against the Company, and one observer noted in 1800 that within Tipu's main fort *'were eleven large powder magazines, eleven armories for making and finishing small arms, two foundries for cannon, three buildings with machineries for boring guns and musquets, four large arsenals besides granaries, treasures... jewels'*.[13] Moreover, the quality of what was manufactured was very good, and one British officer who assessed the production process took the view that *'Tipu's guns are as good as any in the world'*.[14] Nonetheless, despite the impressive advances that Tipu had made in terms of weapons manufacture, it is evident that in large part the military strength of Mysore rested on the procurement of British arms. No doubt, some of these arms had been captured from the Company's forces, but it was also the case that Tipu's war effort was reinforced through the use of a transoceanic supply chain that stretched back to Britain and other parts of Europe.

That the manufacturing origins of so much of Tipu's great arsenal could be traced back to Britain should have come as no great surprise to those contemporaries who knew anything at all about the East India trade because private traders had long been running guns into India. This had probably been happening since the early seventeenth century, but by the middle of the eighteenth century the problem became acute at the very moment that the Company was embroiled in wars against the French, Dutch, and a whole host of Indian powers. A leading Company military officer, Colonel Hector Munro, acknowledged this when he appeared before a parliamentary committee in 1772. Munro, who had commanded Company forces to victory at the battle of Bhaksar in 1764, told the committee that while the Indian powers made most of their own gunpowder they obtained their artillery from *'England, Holland, and France'*, and he went on to report that *'while I was in India there was hardly a ship came there that did*

12 Laxon to Lt-General Harris, 20 May 1799, BL, IOR, F/4/51, Board's Collections no. 1115B, pp. 623-53.

13 Lt Col. Alexander Beatson quoted in Ghosh, A. (2002: 167).

not sell them cannon and small arms'.[15] He described the smuggling of arms into India as a *'very great scandal'* but thought that *'such a practice might be easily prevented, as to the English smuggling'*.[16] However, a parliamentary act of 1770, which was designed to have this deterrent effect, appears to have remained a dead letter and it did little to address the very situation described in its preamble:

> *… sundry captains and other officers and mariners of ships … bound to India do oftentimes, in a clandestine manner, carry and transport to the East Indies aforesaid, great quantities of artillery, ordnance, musquets, fire-arms, ammunition and warlike stores, and there sell and dispose thereof to powers in those parts at war, or in enmity with the Company, or to other persons, through whose hand the same do or may come to the use of such powers; to the great injury of the publick, as well of the said Company, and there possessions and trade in India. Anyone in the service of the Co found to be involved in this trade will be deemed to have been involved in a high crime and misdemeanour. Anyone convicted after prosecution at Court of King's bench will be liable to corporal punishment.*[17]

The very fact that an Act of Parliament was deemed necessary to provide a deterrent to arms trading points to the scale of the problem confronting those charged with directing the Company's affairs. But particularly galling for directors and officials was the fact that those who conducted this arms trade did so on board Company ships as well as on interloping or clandestine trading vessels. Indeed the Company itself had long recognised that licensed private traders who operated on board East Indiamen by means of the *'privilege'* afforded to all commanders and officers often had few scruples about selling weapons to those who were then very likely to turn them on Britons and others serving in the Company's forces, as well as copy them as they sought to develop their own capacity to manufacture weapons. Accordingly, writ large in the printed Company regulations that shaped the conduct of the privilege trade were rules that stipulated that, as with the Act of 1770, trading in arms was a high crime and

15 'First Report of the Select Committee on East India Company Affairs' (1772) in *Reports From Committees of the House of Commons, 1715-1801*, 15 vols. (1803), III, p. 169.

16 Ibid.

17 10 Geo. III, c.47: 'For better regulating persons employed in the service of the East India Company'.

misdemeanour.[18] Yet, ultimately, no matter how the Company sought to tackle the problem of arms trading, merchants were able to get around or over any restrictions that were put in place. This was because the East India trade had become a multi-channel trade which offered plenty of alternative routes along which commodities could be transferred to Asia.

The general scheme of organisation for the East India trade adopted in my broader study is represented in *Table 1* below, and it underscores the point that the trade of the Company was only one transoceanic commercial channel among many, and each of them could facilitate the transfer of military stores to Asia.

Table 1: British Trade with Asia, 1760-1833

a. Official or legal trade
The trade of the East India Company
The *'privilege'* trade of the commanders and officers of East Indiamen
Limited licensed private trade on Company ships 1793-1813
Open trade with India only from 1813 onwards
British commodities legally re-exported from Europe, via other East India Companies
b. Unofficial or illicit trade: smuggling and clandestine trade
Smuggling on board East Indiamen by commanders and officers
Illicit trade on ships from London and outports
Clandestine trade on British-owned foreign registered ships sailing from and to London
Clandestine trade, post-1783, on American ships to and from India and China
Smuggling on ships sent on to India from Botany Bay
Smuggling conducted on Royal Naval vessels

A few examples will serve to illustrate the point that a vigorous British arms trade with India was being conducted beyond the trade conducted on the Company's own account.

18 Cartwright, C. (1788), *An Abstract of the Orders and Regulations of the Honourable Court of Directors of the East India Company and of Other Documents Relating to the Pains and Penalties the Commanders and Officers of Ships in the Company's Service are Liable to, for Breach of Orders, Illicit Trade etc…*, London [n.s.], pp. xxxvi-xxxvii

During the mid-1760s several pieces of intelligence indicated to the Company's directors that, together with a range of other *'gruff goods'*, guns, small arms, shot, and other military stores had been transferred onto outward bound East Indiamen off Madeira, Tenerife, and the Cape Verde islands between 1763 and 1765 (see *Table 2*).

Table 2: The Smuggling of Military Stores on Board East India Company Ships to Asia, 1763-5

	Vessel	***Commander***	***Where loaded***	***Supply***	***Goods loaded***
1763	*Vansittart*	Richard Lewin	Madeira Road		*'large quantity'* of iron, cannon, military stores,etc.
1763	*Anson*	Edward Lord Chick	Madeira Road		Lead, iron, cannon, shot, and copper (£1,164)
1763	*London*	John Webb	Madeira Road		As above, plus cloth and long ells (£6,859 10 s.)
1763	*Prince of Wales*	Burnet Abercrom-bie	Tenerife	Port Royall	1100 quintals of iron; 600 quintals of steel; 600 quintals of lead; 12 3-pdr guns
1763	*Fort William*	Edward Roche	Tenerife	Fanny	400 quintals of lead; 900 quintals of iron; 40 3-pdr guns
1764	*Falmouth*	George Hepburn	Channel; St. Iago		320-330 tons of goods
1765	*Nottingham*	Thomas Howe	Cape Verde; La Palma, Canary Islands	New Success, (Robert Hay)	200 1 cwt bundles of steel; 90 1 cwt cases of copper; 35 5 cwt casks of shot; 75 chests of small arms; 6,000 iron bars 220 cannon

As can be seen, in 1763, for example, Richard Lewin took a *'large quantity'* of iron, cannon, and military stores on board *Vansittart* while anchored in Madeira Road; while two years later the large illicit cargo transferred onto *Nottingham*, commanded by Thomas Howe, in the Canary and Cape Verde Islands included 35 five-cwt casks of shot; 75 chests of small arms, and 220 cannon. The size of these consignments of military stores was very considerable, and they posed a significant logistical challenge to those who attempted trans-shipment operations well away from the British mainland. It took a long time to transfer heavy items from one vessel to another, much delaying outward-bound ships, and a large labour force was needed to haul on ropes and stow illicit cargoes in holds or on deck. Nonetheless, many considered it very well worth taking the risks involved.

It is certain that consignments such as those noted above were far from being rare, for they were only those that were detected; and it is equally certain that the statutory restrictions on trading in arms that were put in place did not have the desired deterrent effect. They were not sufficient, for example, to deter the commander of *Bute*, Robert Bendey, from running a large consignment of guns into southern India in August 1774. Bendey arranged for 1,200 muskets with bayonets to be transferred from *Bute* to a *'Paddy Boat'* off the coast near Madras. A subsequent inquiry conducted at Fort St George came to the conclusion that the muskets must have belonged to Bendey, and it was found that they had ended up in the possession of one of the local nawabs. In the event, Bendey avoided prosecution because of problems relating to the evidence supplied by witnesses, and the directors do not appear to have pressed any charges.[19] Bendey evidently felt that it was well worth taking such risks, but how many commanders followed his example during the 1770s and 1780s remains unclear. What is clear, though, is that arms also began to be exported to South Asia through the clandestine trade that was established from the mid-1770s onwards, and this would seem to suggest that those in Britain who wished to organise shipments into India diverted their attention away from ever-more closely scrutinised Company vessels to interloping ships that sailed to the subcontinent either directly from the British Isles or via European ports.

During the 1780s the authorities gradually became more aware of the activities and *modus operandi* of those involved in the clandestine trade, and they began to identify new flows of arms to India that were not dependent upon shipment on board Company vessels. Hence, when an informant reported that *Five Sisters* a 1400-ton British vessel, commanded by O'Brien Harvey, was heading to Calcutta under foreign colours rather than to its stated destinations of Cadiz and the Canary Islands, he told Henry Dundas that it carried iron ordnance and 40 nine-pound guns as well as 190 casks of porter,

19 For details of this episode see BL, IOR, L/L/7, no. 214. Bendey did not command an Indiaman again, but he did later return to serve as a commander Company packet boats. This was probably because of his earlier good service record which had caused the Company to reward him in 1760 for his actions when put in charge of a long boat at St Helena and directed to inform the Company's homeward-bound ships that French cruisers were in the vicinity. He was captured by the French and made prisoner of war, during which time he incurred *'extraordinary expenses'*. The Company paid him a gratuity of £52 10s. See ibid., L/AG/1/5, vol. 17, p.196.

more than 2,000 pigs of lead, and a large quantity of iron and copper.[20] This was not an isolated example of an interloping trader chancing his arm in an attempt to breach the Company's monopoly, and Dundas's informant told him that *Five Sisters* was undertaking a voyage identical to that made by *Hydra* two years earlier. Thereafter, systematic inquiries began to reveal not only the size and scope of the clandestine trade but also the central importance of arms exports to the private traders. Thus when in 1791 a Company committee of inquiry examined the general matter of the smuggling of manufactured goods to India from Britain, it defined an *'illicit trade'* whose four branches were *'manufactures', 'metals', 'navy stores',* and *'military stores'*. Unsurprisingly, the committee concluded that *'no certain information'* could ever be obtained about the extent of illicit trade conducted on board the Company's own ships, but it did also consider evidence relating to ships that had been fitted out in Britain in 1789 before they sailed to India without the Company's permission. One of these vessels, *St Joseph* from Ostend, carried mainly metals, ironware, groceries, and coaches, but the manifest of *'Lord North, since called the Daphne'* revealed a cargo containing a significant amount of military stores, including 20 iron cannon and carriages, four large cannon, 1 ½ tons of large shot, 89 casks of shot, 63 swivel guns, and ten barrels of gunpowder.[21]

If *Daphne* had provided an isolated example of a British vessel carrying guns to India, the directors would probably have expressed little concern, but it was becoming evident that British-owned ships operating under foreign colours were carrying large consignments of military stores to India so that arms could be sold to Tipu Sultan. Indeed, in 1791 reports suggested that two French agents were acting on behalf of Tipu in Europe, assembling consignments of arms and arranging for their shipment to India. The reports were regarded as being sufficiently credible for ministers to instruct the directors to send to India the names of four vessels *'supposed to be fitted out in different ports of Europe, for the purpose of carrying military stores to Tippoo Sultan'*.[22] Information relating to these ships is presented in *Table 3*.

20 Copy of 'W.L.' to the Board of Control for India (n.d., late 1780s), National Library of Scotland, MS 1066, f.44.

21 *First Report of the Select Committee (Appointed by the Court of Directors to Take into Consideration the Export Trade from Great Britain to the East Indies)*, dated 1 and 7 Sept 1791, presented 2 January 1793, Appendix No. 5, pp. 38-39.

22 The Secret Committee of Directors to the Councils of Bengal, Madras, and Bombay, 13 May 1791, *Fort William – India House Correspondence (Foreign, Secret, and Political)*, XVII*: 1787-1791*, ed. Syed Hasan Askari (Delhi, 1976), pp. 84-6 (quotation on p. 84).

Table 3: The Clandestine Arms Trade to India, 1791

Ship	***Commander***	***Port***	***Destination***	***Colours***	***Agents***
Enterprize	Babcock	Ostend	Mauritius and Malabar Coast	American	Harris & Keith of Ostend
Crown Princess Maria	Christman	Ostend	Madras	Danish	Railton & Rankin of London
Minerva	Greenaway	Middleburg	Madras	Danish	Webb & Rigg of London
Princess Frederica	Barkley	Middleburg	Madras	Danish	Fraser of London

Source: The Secret Committee of Directors to the Councils of Bengal, Madras, and Bombay, 13 May 1791, *Fort William – India House Correspondence*, XVII: *(Foreign, Secret, and Political)1787-1791*, ed. Syed Hasan Askari (Delhi, 1976: 84-5).

Ministers were especially worried about *Enterprize*, and although they thought that the information received about the other three ships *'may possibly be more doubtful'*, they instructed that if any of the vessels were intercepted en route to the Malabar Coast they should be seized. They had good reason to be concerned. The intelligence they had received suggested that *Enterprize* was laden with *'About 100 tons of cannon, guns, carriages, powder, shot, flintys, small arms, and other sorts'*. *Crown Princess Maria* and *Minerva* were thought to be carrying more or less the same sorts of cargo, while *Princess Frederica* was reported to be *'deeply loaded with cannon and other military stores, and a quantity of copper'*.[23] The following year other similar vessels were identified, and later in the decade a series of inquires revealed a sophisticated large-scale operation based in Copenhagen, but also involving Dutch and English agents, to facilitate the transfer of French cargoes from India to Europe at a time when Britain was at war with France. [24] These inquiries exposed the inner workings of the clandestine trade and, although the Company Director David Scott was eventually able to refute the politically motivated charge that he himself had been trading with the enemy under

23 Ibid.: 85-6.

24 For the papers that formed the background to the inquiry see BL, IOR, H/496, *passim*.

foreign colours, the findings endorsed Scott's own claims that a great deal of trade was being carried to and from Europe in non-Company British-owned ships.

3

What is to be concluded from the foregoing brief reconstruction of the private trade in arms to India? It is certainly evident that there was a high-volume trade in arms that was extremely innovative and flexible; and it was a trade that was able to deliver large quantities of arms and military stores to the Indian rivals of the East India Company. This might call into question the motivations and morality of those merchants and agents who conducted the trade, although it must be said that it is unlikely that the manufacturers of the arms involved knew exactly where their products were going, and they probably did not ask too many questions. It is also evident that many of those who supplied the East India Company and the private trade were government contractors, and it seems that a portfolio of contracts was represented in their order books, although more research needs to be devoted to this subject. Finally, this was a trade that facilitated the transfer of military technology and equipment to India, helping to *'modernise'* warfare in ways that led to a convergence of methods and tactics, and, temporarily at least, enabled some Indian powers to compete on more or less equal terms with their British enemies.

Appendix. East India Company Purchases of 'General Merchandise' for Export, 1 July 1789-30 June 1790 (in descending order of price paid, with military stores highlighted)

Month	*Tradesmen*	*Goods*	*Paid (£s)*
May	Nicholas Donnithorne	Tin	53,828
Aug	Jukes Coulson & Co	Ironmongery	5,894
Sep	The Apothecaries Co	Medicines	4,479
Jul	Sir James Esdaile & Co	Soldiers Accoutrements	4,382
Aug	William Hood & Co	Iron Guns	2,916
May	James Woodmason	Stationary	2,413
Sep	John Devaynes	Medicines	2,341
Apr	James Woodmason	Stationary	2,233

Jul	James Jones	Shot and Shells	2,111
Apr	James Woodmason	Stationary	2,107
Sep	James Wooley	Swords	1,858
June	Richard Grace	Cases	1,805
Jul	Wiggin & Co	Shot and Shells	1,682
Mar	John Twigg decesaed	Small Arms	1,620
Mar	Michael Memory	Small Arms	1,620
Mar	William Wilson	Small Arms	1,620
Mar	Daniel Moore	Small Arms	1,620
Mar	John Tow	Small Arms	1,620
Mar	William Henshaw	Small Arms	1,620
Dec	James Woodmason	Stationary	1,614
Feb	Dorothy Turner	Canvas	1,590
Apr	Dorothy Turner	Canvas	1,579
Feb	Hammond & Jones	Canvas	1,571
June	Clarke & Merriman	Cases	1,568
Mar	Hammond & Jones	Canvas	1,540
Jul	John Hume	Soldiers Accoutrements	1,334
Jul	Richard Bradley	Shot and Shells	1,252
Jul	William & Francis Kinman	Shot and Shells	1,226
Sep	Goodchild Slater & Co	Ironmongery	1,181
Dec	Albion Mill Company	Flour	1,162
Sep	John Garden	Soldiers Accoutrements	1,066
Sep	Rice Price	Surgeons Instruments	1,042
Apr	Thomas Reid	Cordage	996
May	Arthur Shakespear	Cordage	919
Apr	John and James Mangles	Buntins etc	904
Apr	John Thompson jnr	Cordage	900
June	James Jackson	Cordage	897
June	N. Pearse & Sons	Soldiers Cloaths	868
June	Samuel Nodin	Cases	860
Jul	David Fraser	Soldiers Accoutrements	858
Aug	James Wolley	Swords	857

June	Mary Squire	Cases	803
May	Joseph Lifford	Cordage	741
Apr	William Sims	Cordage	584
Mar	John Rea	Small Arms	540
Mar	William Nicholson	Small Arms	540
Mar	Henry Nock	Small Arms	540
Mar	Joseph Loader	Small Arms	540
Mar	Daniel Goss	Small Arms	540
Mar	James Hirst	Small Arms	540
Mar	Penelope Harrison	Small Arms	540
June	Alexander Davidson	Small Arms	540
Nov	Peter and William Mellish	Salt Provisions	524
Dec	Charles Wilson	Stationary	524
Dec	Charles Wilson	Stationary	518
Mar	George Glenny	Pitch	454
Jan	Charles Wilson	Stationary	432
June	Daniel Fossick & Co.	Tin Ware	425
Oct	Joseph Spackman	Tin	388
Jan	Albion Mill Company	Flour	377
Apr	Robert Todd & Co.	Masts, spars etc	376
May	John Stunt	Shoes	347
May	Herbert, Steward & Head	Casks	338
Sep	James Hirst	Small Arms	336
Jan	Peter and William Mellish	Beef and Pork	322
May	William Brooks	Bullet Moulds	306
Aug	Henry Nock	Small Arms	305
June	William Hood & Co	Iron Guns	302
Apr	Nathaniel Taylor	Pitch and Tar	301
May	William Sims	Cordage	301
May	Joshua and D. Smith	Deals	281
June	John and Thomas Hardy	Tunnery	274
Mar	James Thompson	Small Arms	270
Mar	Dorothy Turner	Canvas	267

June	Susannah Loving & Co.	Blocks etc	260
June	John White	Smiths Bellows	258
Apr	Joseph Sifford	Cordage	255
May	William New	Scales and Weights	251
Feb	Michael Henley & Son	Coals	232
June	Higginson Barnard & Co.	Linnen	231
Dec	Hammond & Jones	Canvas	226
Jan	Dowson & Atkinson	Beef and Pork	215
Sep	Jos Ramsden	Mathematical Instruments	199
Jul	Sir James Wright	Artificial Slate sent to Bombay	191
Dec	Miles Peter Andrews	Gunpowder	182
May	William Newman & Son	Leather	148
May	Robert Sowerby	Slops	143
Dec	Dowson & Atkinson	Irish Beef and Pork	138
Apr	M.K. Wagner	Hats	135
May	William Wilson	Cart Wheels	134
Oct	Daniel Spurgeon	Housing Small Arms	131
Feb	Edward Haydon & Son	Lines and Twine	130
Apr	Edward Hayden & Son	Cables	130
May	Turner & Co.	Shirts	130
June	Richard Carpenter Smith	Hosiery	130
June	James Harris	Rupture Trusses	127
Jul	Alexander Mackintosh	Soldiers Accoutrements	126
June	Thomas Quinton	Glass Ware	118
May	G. Blundell	Lint	111
June	Joseph Spackman	Pewter	105
Dec	Edward Hayden	Lines and Twine	104
Jul	Joseph Spackman	Pewter	103
Jan	Edward Hayden & Son	Lines and Twine	99
May	Lancaster, Bax & Elill	Milled Lead	97
May	Richard Lloyd	Butter and cheese	90
Dec	Hammond & Jones	Canvas	83
May	Anna Scatliffe	Compasses	79

Mar	William Tattnall	110 pairs of blankets	78
Apr	Benjamin Whitelock	Haberdashery	78
Sep	William Abrahams	Powder Horns	75
May	Pindar & Norris	Stone	75
June	Michael Henley & Son	Coals	73
May	G. Hodgson & Co.	Porter	70
Sep	Theodore Quintin & Son	Glass Ware	61
Sep	Christopher Carroll	Gold Lace	61
May	A and G. Adams	Mathematical Instruments	59
June	William New	Scales and Weights	58
May	Samuel and Francis Freeman	Lead Shot	55
May	Walker, Maltby & Co	Milled Lead	50
Sep	Sir James Esdaile & Co	Soldiers Accoutrements	42
May	William Goodwin	Lead pipe	42
May	Thomas Preston	Milled Lead	42
Oct	Miles Peter Andrews	Gunpowder	39
Jul	Michael Memory	Small Arms	35
Jul	Daniel Moore	Small Arms	35
Jul	John Tow	Small Arms	35
Jul	William Wilson	Small Arms	35
Jul	William Henshaw	Small Arms	35
Jul	John Twigg	Small Arms	35
Jan	Gordon Dermer & Co	Garden Seeds	27
June	Crawshay & Son & Thompson	Iron Guns	25
May	Mary Hewet	Cutlery	24
Aug	Eade & Co	Flags	19
May	John Nodin	Marquee, tents, etc	19
Apr	Henry Cook	Sponges	16
May	Hanmoor & Jones	Indigo & Starch	15
May	Mary Bristow	Grocery	14
Jul	John Rea	Small Arms	13
Jul	Daniel Goff	Small Arms	13
Jul	Penelope Harrison	Small Arms	13

Jul	William Nicholson	Small Arms	13
Aug	Henry Nock	Small Arms	13
Aug	Alexander Davidson	Muskets	13
Aug	William Saville	Copper Hoops	13
Sep	Ann Adams & Co	2 Electrical Machines	13
Sep	James Hirst	Muskets	13
June	George Adams	Electrical Machines	13
Aug	Timothy and William Curtis	Split Peas	11
June	Joseph Spackman	Pewter	6
Jul	James Thompson	Muskets	5
Jul	Ann Hoffman	Tallow	5
May	Edward Butler	Chalk	5
Sep	Daniel Fossick	Tin Ware	3
June	Daniel Fossick & Sons	Tin Ware	3
June	Richard Jupp	Commission for Providing Stone for St Helena	3

Source: British Library, India Office Records, L/AG/1/5, vol. 23.

Bibliography

BAILEY, de W. and NIE, D.A. (1978). *English Gunmakers. The Birmingham and Provincial Gun Trade in the 18th and 19th century*, London: Arms and Armour Press.

BOWEN, H.V. (2007). *East India Company: Trade And Domestic Financial Statistics, 1755-1838*, located at http://www.esds.ac.uk/findingData/snDescription.asp?sn=5690&key=5690.

FURBER, H. (1951). *John Company at Work. A Study of European Expansion in India in the Late Eighteenth Century*, Cambridge, Mass.: Harvard University Press, pp. 118-9.

GHOSH, A. (2002). "Rockets of the Tiger: Tipu Sultan' in Ray", in ANIRUDDHA (ed.), *Tipu Sultan and His Age: A Collection of Seminar Papers,* Kolkata: The Asiatic Society.

HARDING, D.F. (1997-1999). *Small Arms of the East India Company,* 4 vols., London: Foresight.

JASANOFF, M. (2005). *Edge of Empire: Conquest and Collecting in the East, 1750-1850*, London: Fourth Estate.

ROY, K. (2009). 'Limited Military Modernization and Indian Society, 1760-1849' in ROY, K. (ed.). *The Oxford Companion to Modern Warfare in India: From the Eighteenth Century to Present Times*, New Delhi: Oxford University Press, pp. 62-107.

Global power, local connections: The Dutch admiralties and their supply networks 3

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Introduction

Until the rise of the modern factory, the building and equipment of a fully armed warship remained one of the largest, most concentrated forms of investment that either the state or private entrepreneurs could undertake (Brewer, 1988:34). As bureaucratic institutions, naval administrations had to develop strong links to the market to be able to execute their tasks. The way in which this was done differed from country to country, varying between cases in which the state firmly controlled most stages of production and supply to cases in which much initiative was left to private capital (e.g. Glete, 2010: 28, Mémain, 1936: 295-6, Rodger, 2004: 44 ff, Symcox, 1974: 40-41, Torres Sánchez, 2009: 162). The Dutch Republic was an example of the latter. In his comparative study of early-modern navies, Jan Glete noted that '*[t]he connection between the interest base and the composition and operations of the state navy is unusually clear in the Dutch case*' (Glete, 1993: 154). For an important part, this was due to the federal structure of Dutch naval administration in which five independent admiralty boards, located in the main ports of Holland, Zeeland and Friesland, were governed by colleges consisting of delegates from the different towns and provinces. The States General, which supervised the admiralty boards, consisted of delegates from the same towns and provinces. A strong social bias in the selection of delegates to the colleges further strengthened the ties between naval administration and local merchant communities (Bruijn, 1970: 40 ff, and Bruijn, 1993). This article examines how the exceptionally strong ties between local political and economic elites came about, how they were reflected in the make-up of the administrative personnel of the admiralties,

and how such ties translated in the approach of naval bureaucrats to the introduction of 'economic' administrative practices and in the way they organised supply for a number of key categories of goods.

1. Origins of federalism in naval administration

The division of naval administration into five separate institutions was a child of the Dutch Revolt. During the 1570s, the motley crews of the disorganised Sea-Beggar fleet were transformed into a rudimentary navy. Initially, this was done on a purely local basis. However, with the establishment of a *Closer Union* between the two core rebel provinces Holland and Zeeland in 1576, the decision was taken to establish a joint navy under the leadership of William of Orange. Since Amsterdam at this time was still loyal to the Habsburg rulers the insignificant port city of Rotterdam was chosen as location of the admiralty board. This could have worked in favour of the installation of a centralised naval administration. Rotterdam had little political weight of its own, only retaining full and permanent voting rights in the States of Holland in 1580, and its location near Delft as the seat of the Prince of Orange and The Hague as the bureaucratic center of the Republic also made direct control from above easier (Koopmans, 1990: 27-28). However, Zeeland administrators rejected what they perceived as Holland domination over the new naval institutions. Before the Revolt, the Zeeland town Veere had been the home of the principal institutions of the Habsburg navy, and now the province refused to give up its powerful position so easily (Sicking, 2004: 407 ff).

Tensions between centralising and particularism tendencies became even more pronounced after the murder of William of Orange in 1584, during the troubled governorship of the Earl of Leicester. Leicester strove to bring naval direction under supervision of the Council of State. In order to placate the opposition against the accumulation of power into central hands, he agreed that executive power would be divided over three rather than one admiralty boards. Next to a Rotterdam admiralty, he proposed one in Zeeland and one in the Northern Quarter of Holland, which would reside in the important South Sea harbour of Hoorn. However, Hoorn had its own reasons to refuse at this point, and Amsterdam which by now had joined the revolt managed to manoeuvre itself into position to claim the third admiralty seat. When Leicester left, fragmentation went even further. Central authority over the navy was shifted from the Council of State to the States General, in which provincial and local

interests were reflected much stronger. Meanwhile, the North Quarter of Holland demanded its own seat, which was shared between the two North Quarter towns Hoorn and Enkhuizen. Finally, in 1596, the two northernmost provinces Friesland and Groningen managed to enforce the establishment of a fifth admiralty board, situated first in Dokkum and later in Harlingen. The instruction of 1597 affirmed this division into five independent admiralties, allowing each control over their own financial means through the '*convooyen en licenten*' (customs), the election of naval officers including their own admirals, and the right to fit out convoying expeditions as long as this was done '*in good correspondence*' with the other admiralty boards and the States general (Anonymous, 1730: 11).

Of course, the political establishment was not blind to the need for coordination between the federal admiralty boards. Right from the start, attempts were made to increase the level of cooperation, sometimes going as far as proposing full administrative centralisation. Significantly, in the run up to the instruction of 1597 formalising the federal nature of naval institutions, centralised alternatives were seriously contemplated. A resolution of 14 June of that year, just preceding the final version of the new instruction, noted that there had been thorough discussion,

> *how and in what way the administration of customs and the policy of the affairs of the Admiralty, with their appurtenances, could be accounted for to the greatest advantage of the Generalty and contentment of the United Provinces; either by the introduction of a general college, with deputies thereof in the respective quarters, or by the erection of several colleges* (Japikse, 1926: 516).

This certainly was not the last time that centralisation was contemplated. In the 1630s, *Stadtholder* and Admiral-General Fredrick Henry undertook several attempts to separate convoying, which he intended to remain in the hands of the five admiralty boards, from the fitting out of the blockading fleet for Flanders, which he tried to organise through a Directorate operating from Hellevoetsluis, a port near Rotterdam (Bruijn, 1998: 36-7). This would be supervised by,

> *a permanent College with its necessary officers, which would reside in The Hague, for which the most able and experienced Lords Councilors from the respective Admiralty Colleges would be employed, or some other pious, experienced, and able Persons that will be chosen for this task* (Aitzema, 1669: 594).

However, the proposal suffered the same fate of its predecessors, this time because of opposition from the Amsterdam mayors (Aitzema, 1669: 595-7).

The structure of naval administration assured strong influence of local elites. At the head of each of the five admiralties was a college made up of representatives from towns and provinces. As was the case in all sections of the Dutch state, an intricate system of cross-representation had to ensure that all major towns and regions could take part in decision making (see *Table 1*). However, in each case the province in which the admiralty was located had the biggest delegation, containing half or more of the seats. With dominance over three out of five admiralties and two fifths of the total number of seats in all admiralty colleges Holland's share of control over naval administration exceeded that of the other provinces. Permanent seats in three out of the five admiralties gave Amsterdam an institutional advantage over the other Dutch towns. Thus, admiralty administration remained firmly connected to local politics.

Table 1: Federal representation in the five admiralty colleges
(division of seats from 1644 onwards)

	Holland	***Zeeland***	***Gelderland***	***Utrecht***	***Friesland***	***Overijssel***	***Groningen***	***Total***
Rotterdam Admiralty	7*	1	1	1	1	1	-	12
Amsterdam Admiralty	6**	1	1	1	1	1	1	12
Zeeland Admiralty	2***	6/7	-	1	-	-	-	9/10
North Quarter Admiralty	6****	1	1	1	1	1	-	11
Friesland Admiralty	1	-	1	1	4	1	2	10
All admiralties	22	9/10	4	5	7	4	3	54/55

* Nobility, Dordrecht, Delft, Rotterdam, Gorinchem, Schiedam, Den Briel.

** Nobility, Haarlem, Leyden, Amsterdam, Gouda, Edam.

*** Permanent: Amsterdam / on turn: Dordrecht, Delft, Rotterdam.

**** Amsterdam, Alkmaar, Hoorn, Enkhuizen, Monickendam, Medemblik.

Source: 'Repertorium van ambtsdragers en ambtenaren 1428-1861', http://www.historici.nl/Onderzoek/Projecten/Repertorium (accessed 20-10-2011)

2. Naval councillors and their connections

Table 2 gives some insight into the political careers of naval councillors at the local, provincial and national levels of the Dutch state. The figures concentrate on two selected groups of naval administrators: the Holland representatives on the Amsterdam admiralty college and the Zeeland representatives on the Zeeland admiralty council. The table affirms in particular how well integrated the admiralty councillors were into the world of urban politics. Not only did almost all representatives of the towns gain their position on the admiralty boards through local politics, often they had been or later became aldermen or mayors. In Zeeland, strong local representation and strong integration into provincial politics went hand in hand since the office of Provincial plenipotentiary was tied directly to that of admiralty councilor. There, average terms of service were quite long (15 years). Holland councillors on the Amsterdam board on the contrary only served for periods of five to six years, and did not pursue careers in provincial politics at the same frequency as their Zeeland counterparts. Frequent replacement helped to ensure that naval administrators remained true to the interests of their hometowns, therefore inhibiting the emergence of a strong bureaucratic culture focused on the institution they served.

Table 2: Political ties of councilors in the admiralty colleges

		Nº councilors	*Av. years in function*	*Function in local government*	*Function in provincial government*	*Function in national government*
Representatives from Holland on the Amsterdam Admiralty College	1586-1699	170	5,1	152 (89%)	36 (21%)	28 (16%)
	1700-1795	117	5,8	108 (92%)	36 (31%)	25 (21%)
Representatives from Zeeland on the Zeeland Admiralty College	1584-1699	56	15	45 (80%)	55 (98%)	13 (23%)
	1700-1795	37	15,1	35 (95%)	37 (100%)	4 (11%)

Source: *General:* 'Repertorium van ambtsdragers en ambtenaren 1428-1861', http://www.inghist.nl/Onderzoek/Projecten/Repertorium/app/instellingen/118/ (accessed 19-5-2010), Anonymous, 1684, 1692, 1733, 1735-1794, Valentyn, 1724: 301-316, Hartsinck, 1770, Boer, 1914-5, Gabriels, 1981, Gaastra, 1989, Gabriels 1990 / *Alkmaar*: Bruinvis, 1905 / *Amsterdam*: Elias, 1903-1905 / *Delft*: Houtzager and

others, 1987 / *Dordrecht*: Balen, 1677 / *Gouda*: Jong, 1985 / *Leiden*: Prak, 1985 / *North Quarter*: Bossaers, 1996 / *Rotterdam*: Unger, 1892, Engelbrecht, 1973 / *Zeeland*: Nagtglas, 1888-93, Enthoven, 1989: 111-113 / *Middelburg*: Bijl, 1981 / *Tholen*: Romeijn, 2001 / *Zierikzee*: Vos, 1931.

However, examining these two groups of administrators also affirms a second point. Members of the admiralty councils were not only selected for their ties to local and regional politics. Their collective biography reads like a who's who of Dutch Republican commercial elites. Out of the 287 Holland councillors, 52 also served as directors of the VOC or WIC or as directors of the Surinam Society. Among, the Zeeland representatives, formal ties were a bit weaker with 13 out of 93 councillors holding positions as directors of the local chambers of the VOC or WIC. Perhaps more important is that at least in Amsterdam, from the last quarter of the seventeenth century onwards the position of admiralty councillor and VOC director were often combined, so that at most times the VOC had at least one and sometimes more than one direct representative within naval administration. The connections between the admiralty boards and the colonial companies did not end there. Personal and family connections bound these institutions even closer together. During the first half of the seventeenth century, the Amsterdam admiralty council contained three sons of founding traders of the VOC: Andries Bicker, Pieter Pietersz Hasselaar and Jacob Poppen. Jacob Cornelisz van Neck, known as one of the most influential Amsterdam admiralty councillors of this period, had been the admiral of the 1598 East India fleet (Terpstra, 1950: 152-3). In Zeeland, besides the 13 directors of the VOC and WIC, eight other admiralty councillors belonged to families that were large stakeholders in one or both of the colonial merchant companies.

Thanks to Elias' major study of the Amsterdam elite, most is known about the economic background of the Amsterdam admiralty councillors. *Table 3* gives an overview of the extraordinary wealth and connections of this group. Amsterdam admiralty councillors did not simply represent the wealthy merchant houses. They were part and parcel of them. In fact, their estimated wealth places them right at the top of the Dutch Republican economic elite (Cf. Burke, 1974: 55-6). Though more sparse, the data on wealth and income of the other councillors affirm this image. Of the fifteen Leiden representatives for whom such figures are available, seven bequeathed an inheritance of over *f*100,000, placing them among the richest of their town (Prak, 1985: 115).

Table 3: Wealth and connections of Amsterdam naval councilors

Period	*Number of councilors*	*Governor for VOC or WIC*	*Active merchant (Elias)*	*Son or son in law of active merchant*	*Estimated wealth**	*Estimated income**
1586-1650	14	3	12	12	329,000 (6)	
1651-1700	15	12	5	15	245,000 (8)	
1701-1750	10	5	2	9	1,795,000	22,000 (5)
1751-1795	15	10	6	8	448,000 (5)	13,000 (7)
Total	54	30	25	44	465,000	17,000 (12)

* Average, number of councillors on which the figure is based within parentheses.

Source: *Elias, 1903-5.*

Close ties to the merchant community at large were not only characteristic for the admiralty councillors, but also for the small bureaucratic staff that served the admiralty boards on a permanent basis. In Amsterdam, from 1641 till 1795 the position of secretary of the admiralty board was held by only two families, De Wildt and Backer. David de Wildt, who was secretary from 1641 to 1671, was the son of Gillis de Wildt, a magistrate of Haarlem and admiralty councillor (Elias, 1903: 392, 468, and Elias, 1905: 876-7). In 1674, David's widow bequeathed a sum of *f* 200,000. Two of his daughters married rich rope makers, Hendrik and Jan Lijnslager. In 1691, Anna de Wildt in the capacity of Hendrik Lijnslager's widow supplied the Amsterdam admiralty with *f* 197, 812:8 worth of rope, thereby acting as by far the largest single supplier to the admiralty that year (National Archive The Hague (from here: NA), *Archief Admiraliiteitscolleges*, no. 1930. 'Register ordonnantien Admiraliteit van Amsterdam, 1691'). David's son Hiob de Wildt took over the position of secretary, which he held until 1704 (Elias, 1903: 392-3, Elias, 1905: 851). He married twice, first with Susanna Reael, daughter of governor-general of East India Laurens Reael, and after her death with Barbara de Neufville, daughter of the head of one of the leading Amsterdam merchant houses. Hiob de Wildt himself took to the ox trade, a profession that was closely related to victualing the VOC and the navy. His inheritance amounted to *f* 170,000. His son David was secretary until 1729 (Elias, 1903: 109, 393, 447, Elias, 1905: 640, 705, 814).

Two of his daughters were married into leading merchant and banker families, that of Bicker and De Pels. His son Job did not become secretary of the Amsterdam admiralty, but receiver general of the same institution (Elias, 1903: 393-4, Elias, 1905: 807, 899). In 1742, his yearly income was estimated at *f* 12-14,000. The post of secretary went over to the then treasurer of the admiralty, Cornelis Backer, and after him to his son Cornelis Cornelisz, who married the daughter of leading Amsterdam merchant banker Pieter Clifford (Elias, 1903: 362, Elias, 1905: 680-1, 757, 894, 913).

Although office holders everywhere in Europe were selected from the upper middle classes and the rich, the strength of political and economic ties of Dutch naval councillors to the urban ruling classes was exceptional. In countries like Sweden, France and England a professional naval administration was selected respectively through aristocratic background, patronage of the crown, or service as naval officer (Glete, 2010: 297 ff, Pritchard, 1987: 37-8, Rodger, 2004: 187). Reflecting the nature of Dutch politics in general, Dutch Republican naval administrations remained virtually in the hands of the leading merchant families.

3. Personal advantages and rational management practices

The greatest risk inherent in involving capitalist elites directly in the management of naval production and supply of course was that of in-trading. The 1597 instruction for naval administrators contained a number of clauses directed against involvement of councillors and other servants of the admiralty in economic activities directly related to the affairs of the navy. The oath sworn by all admiralty councillors summoned

> *[t]hat they shall not participate, directly or indirectly, in tax-farming, or collection of Customs or other general means, nor in the supply of gunpowder, scarp, guns, weapons, butter, cheese, or any other Victuals, Commercial services, or Goods, sold to the public* (Anonymous, 1730: 26).

That there was ample reason to include such clauses soon became apparent. In 1626, the Rotterdam admiralty became the centre of major proceedings against fraud by members of the admiralty board. The case had been brought to the courts when rumours started to spread among the populace of Rotterdam that naval administrators enjoyed incomes far greater than they were entitled to. One of the leading admiralty functionaries, the Fiscal Advocate, as well as several councillors were found guilty of

participating in the buying and selling of confiscated goods and receiving bribes. They were sentenced to long detention, banishment for life, and tens of thousands of guilders in fines. But as the contemporary historian Lieuwe van Aitzema made clear the sentences were as much directed at punishing the culprits as at shielding the system as a whole from popular wrath. *For if there would have been an examination of all Councilors and Magistrates in the same way according to their Instructions, one might well say* Domine quis sustinebit *[Lord, who will remain standing]* (Aitzema, 1669: 529-30). Despite frequent reissuing of the rules as well as sharpening of the wording of the oath for functionaries, in-trading remained a frequently reoccurring phenomenon well into the eighteenth century (Bruijn, 1998: 137-8, 208-9).

However, it would be wrong to see the strong connections of officials to the market only as a disadvantage for efficient and economic administration. On the contrary, the famous seventeenth-century political economist Pieter de la Court stressed that precisely because of those links, Holland officials in general were much better able than their counterparts elsewhere to mobilise funds and acquire goods at low prices:

> *The (…) fruit of Free Government before and during the [second – PB] English war, is that the Estates of Holland as well as their plenipotentiaries have been able to gather all necessities, even before need arose. This precaution was coupled to two others, namely in the first place that everything was bought and paid with ready money, and in the second place that the commission to execute this was given to plenipotentiaries representing those cities, for which a good outcome of these affairs was of prime importance. (…) This was the cause, that Holland, to the surprise of the entire world, during all emergencies of war could procure the means and finances to temporarily bear the shortages of the Admiralties and the other Provinces, and to supply at lower prices than ever in times of peace the canon, scarp, gunpowder, and victuals* (Court, 1935: 179).

Understandably, Dutch rulers did not want to leave it to the goodwill of the admiralty councillors themselves whether to employ their strong position on the market in the benefit of the Admiralties or for their own private gain. Two routes were followed to encourage economy in naval administration. One was through the development of a standardised, neatly ordered system of accounting by admiralty officials under strict control of the Generalty Audit Office. The other was through the encouragement of buying and selling at market prices.

The 1597 instructions decreed that proper accounts should be kept of every area of admiralty income and expenditure, from the collection of customs and the sale of confiscated goods to the acquisition of ammunition and the hiring of ships. It was the task of the Receiver-General of each of the five admiralties to turn these separate accounts into general reports. Every six months, the accounts should be sent to the States General. The aim of this was '*that the Gentlemen States General from time to time will have perfect knowledge, both of the income and the expenditures*' (Anonymous, 1730: 13). In 1604, the States General delegated a commission to work out a standardised system of accounting for all five admiralty boards, '*so that the entire administration of income and expenditure of each college will be brought on one account by the Receiver General*' (NA, Archief Staten-Generaal, no. 12561.14, 'Poincten van Advijs'). The advice, accepted by the States General, contained detailed prescriptions on how the accounts should be subdivided into separate posts or *summae*, established that the Receivers General should keep proof of all expenditures mentioned in the accounts for control by the Audit Office, and also determined that every ledger should contain a summary report following the same subdivisions as the account-books themselves. Checking the accounts was a lengthy process, and could take up as much as three to five years, and sometimes even more at times of war. But the control was executed meticulously, and on many occasions the Audit Office demanded further proof for expenses, corrections in the accounts, or return payments for expenses that it did not find sufficiently well motivated (Bruijn, 1970: 69).

The result of these interventions in admiralty management was a system of accounting that was extremely well-ordered for its time. Unfortunately, most of the accounts of the period before 1680 were lost, except for those of the Zeeland admiralty. But the almost complete series of ledgers of the Receiver General that remain for the last decades of the seventeenth and most of the eighteenth century show that with a few minor variations, the system designed at the start of the seventeenth century was maintained by all five admiralty boards. The introduction of this unified system of accounting helped to rationalise management of naval affairs both for the state as a whole and within the separate admiralties internally. For the state, it enhanced the possibilities of comparison and control.[1] For the individual admiralties, it helped

1 Comparisons of the efficiency of the different admiralties based on their accounts survive for example for the early 1680's, the 1750's and the 1780's. Resp. NA, Archief J.C. van der Hoop, no. 160, 'Staet ende Memorie van de ontfangh ende de Lasten' (1681-1685), no. 153, 'Secrete Missiven van de

in the development of internal costing methods based on extensive comparisons of expenditures over time and in different branches of naval production and supply. Especially for the second half of the eighteenth century, there is abundant evidence of this use of the accounts to make projections on the future costs of building and equipping ships, determining the desired price, and seeking ways to increase economic efficiency. Detailed estimates survive of the costs of building ships of different charters, and comparisons of those estimates with the actual offers made by shipbuilders and suppliers in the process of public tender (e.g. NA, Archief Admiraliteitscolleges XXXII, Pieter van Bleiswijk 1690-1787, no.6). The availability of similar lists from the seventeenth century suggests that such methods were already well developed at a much earlier stage (e.g. the calculations made for a ship of 170 ft from 1667, NA, Admiraliteitscolleges XXXI, J. Bisdom 1525-1793, no. 117).

It is hard to overestimate the importance of this early introduction of an efficient accounting system by the Dutch admiralties for the history of management practices. The Venetian Arsenal, seen as one of the most impressive naval institutions of the early-modern period, introduced an administrative system enabling comparisons of costs across the institution a mere two decades earlier. (Zambon and Zan, 2007) In most countries, experiments with financial discipline through strict accounting only really took off after the 'naval revolution' of the 1660's. In other areas of state expenditure, accounting practices often remained non-standardised and much more chaotic (e.g. in troop payments, Brandon, 2011). Significantly, however, the VOC did develop an elaborate system of accounting for all different branches of buying, selling and production at an early stage, around the same time as the standardisation of admiralty accounting (Korte, 1984). Jacob Soll has argued that it was the widespread involvement of the commercial classes in state government (a feature the Dutch Republic shared with Venice) that created an administrative culture that was highly susceptible to such bureaucratic innovations. '*The* ars mercatoria *was a rich part of everyday urban life and an essential element of state government. The Dutch ruling elite was familiar with the*

miraliteiten op de Maaze, te Amsterdam en in het Noorder Quartier (...), 30 Juny 1751', and no. 151, 'Missive en Memorie door zyne Hoogheid den heere Prince van Orange en Nassau aan hun Hoog Mogende op den 7 October 1782 overgegeven, etc'. At the end of the eighteenth century, there were even cases where pre-printed administration forms were sent to the admiralties to fill out. NA, Familiearchief Steengracht, no. 157.

minutiae of finance, industry, and trade' (Soll, 2009: 225). It seems no coincidence that the Dutch admiralty boards, with their close and personal links to merchant communities and the large trading companies, were among the pioneers in this respect.

4. Prices and goods

The second way to guarantee that naval officials would buy and sell at the prices most favourable to the admiralty was to make sure that transactions were done as much as possible on an open market, and not underhand. However, this posed different sorts of problems in different lines of supply. Central regulation was strongest in the sale of admiralty goods. The instruction of 1597 decreed that the sale of prizes and confiscated goods should take place through public auctioning. It also specified the conditions under which these auctions should take place. Day, time, and location of the auction had to be announced well in advance through placards posted in all cities at one day's travelling distance from the admiralty town. The auction itself had to be held in the presence of a number of admiralty councillors, who had to make sure that the sale would go to the highest bidder, and that a detailed register of all transactions would be kept (Anonymous, 1730: 36-7). The practice of public auctioning was well established in the Dutch Republic, and frequently made use of by the state. Nevertheless, as the cases of corruption mentioned above show, naval administrators often searched for ways to get around their obligation to sell prize-goods and remainders in this way.

Practices for acquisitioning varied substantially for different types of goods, depending on the size of demand and the structure of the market. *Table 4* contains a complete reconstruction of the Amsterdam admiralty accounts for a number of selected expenses from 1681-1790 (excluding 1780). Unfortunately, it is not possible to obtain such complete series of figures on Amsterdam expenditure for an earlier period. But the table gives a good indication of the relative weight of different goods on the admiralty accounts. Three categories of goods bought by the admiralty will be briefly examined here: victuals; expensive bulk goods such as wood; and finally less expensive types of goods, acquired either in bulk as was the case with nails (included in iron wares), or in small quantities (such as flags, embellishments, etc.).

Table 4: Amsterdam naval expenditure (selected goods) 1681-1790 (in millions of guilders)

	1681 -90	***1691 -00***	***1701 -10***	***1711 -20***	***1721 -30***	***1731 -40***	***1741 -50***	***1751 -60***	***1761 -70***	***1771 -79****	***1781 -90***	***Total***	***As % of total exp.***
Victuals	3.5	7.8	7.5	3.2	3.6	1.7	2.1	3.2	2.6	2.0	5.8	43.1	13.8%
Wood	1.6	2.1	1.8	1.1	2.0	1.4	1.8	1.8	2.3	1.9	5.5	23.4	7.5%
Rigging, rope, hemp	0.9	1.9	2.1	0.7	0.6	0.4	0.7	0.5	0.7	0.7	1.4	10.6	3.4%
Iron and ironware	0.5	0.8	0.6	0.3	0.4	0.3	0.4	0.4	0.4	0.4	1.4	6.0	1.9%
Ammunition	0.6	1.1	0.6	0.1	0.3	0.1	0.3	0.3	0.3	0.4	1.5	5.7	1.8%
Cloth and sales	0.3	0.7	0.6	0.3	0.2	0.2	0.3	0.2	0.4	0.2	0.5	3.8	1.2%
Complete ships	0.4	0.4	0.7	0.0	0.0	0.0	0.0	0.0	0.0	0.1	1.9	2.8	0.9%
Total expenditure on acquisitions	7.8	14.8	13.9	5.7	7.1	4.1	5.6	6.4	6.7	5.7	18.0	95.4	30.1%
Total admiralty expenditure	25.0	42.6	40.6	25.6	23.1	20.3	21.2	21.8	24.0	20.2	48.7	313.2	100.0%

* Excluding 1780

Source: NA, Archief Generaliteitsrekenkamer 1586-1799, nos. 490-717.

Victuals: Making up a total of 13.8% of all of Amsterdam's expenditure, victuals formed the largest single category of goods supplied to the navy. Throughout the period of the Republic, victualling remained a privatised activity, bypassing admiralty administration. Captains were given a fixed amount of money per crew-member per day. This amount was initially set at 5 stuyvers, but later changed to 7, so that the admiralties operated with only two nominal tariffs for a period of two full centuries. For this sum, captains had the responsibility to take care of provisioning on their own account. Lists were provided determining the amount of each type of victuals that had to be on board their ships. But captains were free to choose their own suppliers, and could cut back on expenses by buying low quality products. Because of the decentralised organisation of this type of supply, very little source material is available about the

exact way in which this was done and the profits that could be made. An, all be-it denunciatory, pamphlet of the late eighteenth century estimated the profits that a captain of a man-of-war carrying 60 pieces could make per year as at least *f*19,000 per year (Anonymous, 1779: 22-4). Though this seems unrealistically high, in general victualling was considered to be a way for captains to substitute their otherwise meagre salaries. It is known that during the seventeenth century, Michiel de Ruyter, the most famous admiral of the Dutch Republic, made tens of thousands of guilders on victualling. But long delays in the payment of victualling money by the admiralties, forcing the captains to place large loans by so-called *soliciteurs*, or sharp increases of food prices at times of war, could make victualling a source of loss (Bruijn, 1998: 66-7). The decentralised system of victualling in most likelihood favoured traders in foodstuffs in the admiralty towns and other port cities. The two remaining 'victualling books' for De Ruyter's flagship *The Seven Provinces* from 1666 and 1672 show that he bought victuals mainly from traders in his hometown Amsterdam and in Hellevoetsluis, one of the principal marine ports. In some cases, he placed very large orders, such as that with baker Cornelis Verstege for 19,439 pounds of hard tack, at the cost of *f* 1370:14 (NA, Archief De Ruyter, 1633-1683, no. 125). A description of Amsterdam of about the same time notes that at the Angeliers canal, near Amsterdam's main waterway the '*live the biscuit-bakers, who make ship's biscuit; the Bakeries are very big, with as much as ten or twelve ovens*'. But due to the privatised nature of this line of supply, such concentration of orders in all likelihood remained focussed on local or regional, rather than national markets.

Wood: For large, expensive goods such as the high standard oak used for the building of ships of the line (also for other imported goods such as hemp, tar, sulphur, etc.), admiralties often relied on a limited number of suppliers. Before the late 1660s, when there were no large shipbuilding programs on the admiralty wharves themselves, the acquisition of wood was often left to the shipwrights who held the tender for building the ships. The accounts of the master of equipment in the Zeeland admiralty town Flushing, for example, show the two master shipwrights Pieter Leynssen and Crijn Cudde receiving compensation for wages they paid out as well as for the supply of wood (Zeeland Archive, Middelburg (from here RAZ, Archief Rekenkamer C, no. 35520. 'Equipagerekening Vlissingen 1665'). But with the erection of large naval production facilities and the start of major building programs for a fleet of standardised ships of the line, the admiralties became increasingly large players on the wood market.

Since almost all wood used in shipbuilding had to be imported from Scandinavia, the Baltic and Germany, wealthy international merchants dominated in this line of supply (Lesger, 1992: 107). Over the course of the seventeenth and eighteenth century, this led to frequent fears of large wood-traders forming a cartel against the admiralties. This was an element of Lieutenant-Admiral Schrijver's long critique of naval affairs from the 1750s.

> *It is well known to everyone that in their trade of ship-building oak, the buyers for centuries have been cheated in the most awful way (…), as it is still daily practice, that this wood is sold a fortune above its value at the profit of the sellers, often supplying rotten wood instead of good quality wood, to the ruin of the account of navy and East India Company* (NA, Familiearchief Fagel, no. 1077. 'Versameling van Annotatien', volume 3: 125).

Schrijver proposed the swearing of an oath against monopoly practices. But the Amsterdam admiralty also devised some more substantial means to counter the combined power of the large wood-traders. One was to use active comparisons to force merchants to offer discounts. The archive of late eighteenth-century Fiscal Advocate Van der Hoop contains various notes in which the prices asked by merchants are compared to those actually paid by the admiralty, in one case establishing a difference of 13 1/6 % in the advantage of the admiralty (NA, Archief Admiraliteitscolleges XXXIX, J.C. van der Hoop, no. 118. 'Vergelyking tusschen den Eysch en de Prys van 't ingekogten Eikehout (...) 5 december 1781 tot 11 december 1783'). It also contains a circular sent in 1782 to eighteen wood merchants asking them for detailed price lists.

The ability of the Amsterdam Admiralty to enforce lower prices rested on the availability of a large number of potential suppliers, combined with an active strategy of diversification between suppliers. An overview of accounts from March 1778 to December 1790, including the crucial years of the Fourth Anglo-Dutch War, shows that the Amsterdam admiralty bought wood from 48 merchants. Eighteen of those can be considered large suppliers, making deliveries worth *f* 10,000 or more in at least one of those years. Nine made average yearly deliveries of more than *f* 10,000 taken over the entire period. But as *Table 5* shows, none of these large traders were active for the entire period, the size of their supply contracts varied substantially from year to year, and in no single year did one single trader completely dominate supply to the admiralty.

Table 5. Largest wood-suppliers of the Amsterdam admiralty, March 1778-December 1790 (in thousands of guilders)

Name supplier	***1778 (III-XII)***	***1779***	***1780***	***1781***	***1782***	***1783***	***1784***	***1785***	***1786***	***1787***	***1788***	***1789***	***1790***	***Total***
Stadt, Pieter van der	67.2	70.2	21.9	336.5	323.8	103.9	16.0	7.3	0.9					947.7
Luneschlos, Benjamin van				112.4	273.9	124.5								510.8
Braamcamp, Gerrit	22.3	21.1	18.9	112.8	6.4	57.6	59.8	29.6	26.6	32.3	5.7	1.0		394.2
Frederiks, Jan –widow and heirs	52.8	33.6	21.6	77.1	124.9	22.4	6.7							339.1
Hagen, Jacob	55.2	54.3	37.3	107.1	53.7		2.8							310.4
Plaat, Dirk van der	25.5	19.1	9.0	41.0	1.3		2.2	34.7		16.2	23.8	35.7	30.2	238.8
Harlingen, Gerrit van				5.9	129.9	18.7	9.3	1.0			10.4	6.4	0.1	181.7
Kuijper, Pieter							32.1	23.1	15.5	25.2	19.9	41.2		157.0
Kreeft, Casper									25.7	71.4		15.0	30.0	142.1

Source: *NA, Archief Admiraliteitscolleges XXXIX, J.C. van der Hoop, no. 118. 'Rekeningen aangekocht hout Admiraliteit Amsterdam maart 1778-december 1790*'

The possibility for the Amsterdam admiralty to switch between large suppliers rested on its close proximity to the main centres of wood trade in the Dutch Republic. The smaller admiralties, particularly those of Zeeland and Friesland, had to buy wood at longer distances and in all likelihood were much more vulnerable to monopoly practices of traders. At least for the Friesland admiralty, wood supply became a major problem in the run up to and during the Fourth Anglo-Dutch War (Roodhuyzen-Van Breda Vriesman, 2003: 105).

Inexpensive goods: Numerically by far the largest group of traders supplying the admiralties consisted of small or middle-size merchants and artisans, who did not trade for more than *f* 10,000 per year, and often even for less than *f* 1,000. *Table 6* gives some figures for the distribution between large, middle and small size suppliers of the Amsterdam and Zeeland admiralties for the seventeenth and eighteenth century. The large number of small traders involved in supplying the navy gives an indication of the importance of admiralties not only for large merchants in goods such as hemp and wood, but also for local artisan economies. This was especially true in small towns such as Veere or Flushing, where a substantial part of the artisan communities were involved in supplying small ironware, textiles for flags, transportation services, or were active in temporary jobs as subcontracting painters, woodcarvers or carpenters. Such small artisans were unable to exert the same pressures on admiralty boards as the large suppliers in order to enforce favourable prices. Small traders were also potentially more vulnerable to the long delays in payment customary in naval supplying. However, thanks to their proximity to the admiralty boards and the influence that the Dutch political system allowed to the middle and upper layers of the artisan community at the local level, small suppliers did sometimes manage to gain economic protection. The resolutions of the Zeeland admiralty of the 1650s and 60s contain many examples where the Receiver-General took action at requests of individual merchants to grant them down-payments on the arrears of masters of equipment of the individual sub-branches of the admiralty (e.g. NA, Archief Admiraliteitscolleges, no. 2476. 'Resoluties Zeeuws admiraliteitscollege 1657': fol. 30, 32, 95, 108 vso).

Other protective measures could be taken as well. A resolution of 22 January 1657 granted a supplier of iron nails who had waited since 1654 for payments of his deliveries that the nails would be bought at current market prices rather than the lower prices of 1654 (NA, Archief Admiraliteitscolleges, no. 2476. 'Resoluties Zeeuws admiraliteitscollege 1657': fol.12). Similar forms of local protection were still employed a century later even in Amsterdam, where the number of small suppliers that the admiralty could choose from was much bigger. In 1779, for example, the Amsterdam admiralty accepted the request of suppliers of nails to compensate them for the price rise of fuels after their contracts were concluded by adding half a guilder to the previously established price for the length of a year (NA, Archief Admiraliteitscolleges XXXIX, J.C. van der Hoop, no. 117. 'Extract resolution 9 December 1779'). Such protective measures show that the admiralty boards had some concern for the long-term maintenance of their supply-networks, not only where large and powerful merchants

were involved, but also where it involved the interests of the large mass of local small suppliers.

Table 6: Distribution of suppliers to the Amsterdam and Zeeland admiralties

	Large suppliers (> f 10,000)	*Share*	*Middle-sized suppliers (f 1,000-f 10,000)*	*Share*	*Small suppliers (< f 1,000)*	*Share*
Zeeland 1665 *(Veere branch, Flushing branch, and Receiver General)*	19	72%	50	23%	152	5%
Amsterdam 1691 *(full account)*	23	66%	107	29%	133	5%
Zeeland 1781-1784 *(only Receiver General)*	6	64%	29	29%	69	7%
Zeeland 1781 *(Flushing branch)*	0	0%	9	39%	91	61%
Amsterdam 1790 *(full account)*	16	59%	72	34%	109	7%

Sources: *NA, Archief Admiraliteitscolleges, no. 1930 (Amsterdam 1691), no. 1941 (Amsterdam 1790), RAZ, Archief Rekenkamer C, no. 6980 (Receiver-General 1665), no. 38060 (Veere 1665), no. 35520 (Flushing 1665), no. 8050 (Receiver-General1781-1784), no. 36930 (Flushing 1781).*

Conclusions

The existence of close ties of naval administrators to merchant communities has often been seen as a source of large-scale corruption and in-trading. There are enough examples of this phenomenon, both for the seventeenth and eighteenth century, but on a whole it seems that Pieter de la Court's positive judgment on the functioning of the federal, merchant directed structures of supply during the Second Anglo-Dutch War can be extended to the functioning of Dutch admiralties in general. Other forms of organisation of naval administration, such as the centralised, patronage based, state-monopoly oriented systems of France and Spain were notoriously vulnerable to corruption as well. But they lacked the great advantages inherent in the Dutch (and later British) system of naval administration, relying on strong structural ties of

bureaucratic bodies with developed capitalist markets, embedded in an administrative culture favouring the use of commercial accounting systems and active price-comparisons to create economic efficiency.

However, the benefits of the strong federal structure of naval administration and the local economic ties of naval councillors were not evenly distributed throughout the Republic, as is clear from the example of wood supply. While the Amsterdam admiralty could profit from the wealth of its economic hinterland until the very end of the Republic, smaller admiralty boards in poorer surroundings could not do so to the same extent. This did not only have implications for the development of the admiralty boards themselves, but also for the markets on which they relied. This is most clear in the case of victualling. It has been suggested that in Britain, the centralisation of the system for victualling had strong integrative effects for the national integration of agrarian markets (Rodger, 2004: 307). Because of the privatisation of this line of supply through captains in the Dutch Republic, such national integration was not stimulated. The same can be said for the acquisitioning of the bulk of small goods, which remained highly concentrated on local small producers, to whom naval administrators often exhibited a protectionist attitude. While the mercantile background of naval administrators stimulated a strong commercial mindset, their local political loyalties always made themselves felt.

Literature

ANONYMOUS (1684, 1692, 1733, 1735-1794). *Naamwyzer, waar in vertoond worden de Naamen en Woonplaatsen van haar Ed. Gr. Achtb. De Heeren Regeerders, &c der Stad Amsterdam. 1684, 1692, 1733, 1735-1794*, Amsterdam: Josia Schouten.

ANONYMOUS (1730). *Recuëil van alle de placaten, ordonnantien, resolutien, instructien, lysten en waarschouwingen, betreffende de admiraliteyten, convoyen, licenten en verdere zee-saaken*, Volume I, The Hague: Jacob Scheltius.

ANONYMOUS (1779). *Staat en uitrekening der enorme grove winsten, welke getrokken worden door de Heeren Capiteins, eerste schryvers en doctors, Varende op des 's Lands Scheepen van Oorlog, by het Edel Mogend Collegie ter Admiraliteit*, Amsterdam: Dirk Schuurman.

AITZEMA, L. van (1669). *Saken van Staet en oorlogh, in, ende omtrent de Vereenigde Nederlanden: Beginnende met het Jaer 1633, ende eyndigende met het Jaer 1644.* Volume II, The Hague: Jan Veely.

BALEN, M. (1677). *Beschryvinge der Stad Dordrecht*, Dordrecht: Simon onder de Linde.

BIJL, M. van der (1981). *Idee en Interest: Voorgeschiedenis, verloop en achtergronden van de politieke twisten in Zeeland en vooral in Middelburg tussen 1702 en 1715*, Groningen: Wolters-Noordhoff.

BOER, L.P. de (1914-5). "Naamlijsten van Bewindhebbers en van Hoofd-Participanten der West-Indische Compagnie", *De Navorscher*, no. 63 (1914) 382-8, and no. 64 (1915), pp. 17-21.

BOSSAERS, K.W.J.M. (1996). *"Van kintsbeen aan ten Staatkunde opgewassen": Bestuur en bestuurders van het Noorderkwartier in de achttiende eeuw*, unpublished dissertation.

BRANDON, P. (2011). "Finding solid ground for soldiers' payment: 'Military soliciting' as brokerage practice in the Dutch Republic (c.1600-1795)", in: Stephen Conway and Rafael Torres (eds.). *The spending of states: Military expenditure during the long eighteenth century: Patterns, organisation, and consequences, 1650–1815*, Saarbrücken: VDM Verlag dr. Müller, pp. 51-82.

BREWER, J. (1988). *The Sinews of Power: War, Money and the English State, 1688-1783*, Cambridge, Massachusetts: Harvard University Press.

BRUIJN, J.R. (1970). *De Admiraliteit van Amsterdam in rustige jaren 1713-1751: Regenten en financiën, schepen en zeevarenden*, Amsterdam/Haarlem: Scheltema & Holkema.

BRUIJN, J.R. (1993). *The Dutch navy of the seventeenth and eighteenth centuries*, Columbia, SC: University of South Carolina Press.

BRUIJN, J.R. (1998). *Varend Verleden: De Nederlandse Oorlogsvloot in de Zeventiende en Achttiende Eeuw*, Amsterdam: Balans.

BRUINVIS, C.W. (1905). *De regeering van Alkmaar tot 1795*, Alkmaar: s.n.

BURKE, P. (1974). *Venice and Amsterdam: A study of seventeenth-century élites*, London: Temple Smith.

COURT, P. de la (1935). 'Wat goede vrugten de beginselen eener vrye regeeringe albereids gebaard hebben sedert den jare 1662 tot den jare 1669', reproduced in KERNKAMP, J.H. 'Twee "niet ter drukpersse bereide" geschriften van Pieter de la Court', *Bijdragen en Mededelingen van het Historisch Genootschap*, 56, pp. 151-214.

ELIAS, J.E. (1903-5). *De Vroedschap van Amsterdam 1578-1795*. Two volumes, Haarlem: Loosjes.

ENGELBRECHT, E.A. (1973). *De Vroedschap van Rotterdam 1572-1795*, Rotterdam: Gemeentelijke Archiefdienst.

ENTHOVEN, V. (1989). "'Veel vertier'. De Verenigde Oostindische Comapgnie in Zeeland, een economische reus op Walcheren", *Archief: Mededelingen van het Koninklijk Zeeuwsch Genootschap der Wetenschappen* (1989), pp. 49-127.

FOKKENS, M. (1662). *Beschrijvinge der wijdt-vermaarde koop-stadt Amstelredam, van haar eerste beginselen, oude voor-rechten... en, haar tegenwoordigen standt*, Amsterdam: Abr. en J. de Wees.

GAASTRA, F. (1989). *Bewind en beleid bij de VOC: De financiële en commerciële politiek van de bewindhebbers, 1672-1702*, Zutphen: Walburg Pers.

GABRIELS, A.J.C.M. (1981). "'De Edel Mogende Heeren Gecommitteerde Raaden van de Staaten van Holland en Westvriesland', 1747-1795: Aspecten van een buitencommissie op gewestelijk niveau", *Tijdschrift voor Geschiedenis*, 94, 4, pp. 527-64.

GABRIELS, A.J.C.M. (1990). *De heren als dienaren en de dienaar als heer: Het stadhouderlijk stelsel in de tweede helft van de achttiende eeuw*, The Hague: Stichting Hollandse Historische Reeks.

GLETE, J. (1993). *Navies and Nations: Warships, Navies and State Building in Europe and America, 1500-1860.* Volume 1, Stockholm: Almqvist & Wiksell International.

GLETE, J. (2010). *Swedish Naval Administration, 1521-1721*, Leiden: Brill.

HARTSINCK, Jan Jacob (1770). *Beschryving van Guiana, of de Wildekust in Zuid-America*. Volume II, Amsterdam: Gerrit Tielenburg.

HOUTZAGER, H.L., G.G. KUNZ, H.W. van LEEUWEN, M. van NOORT, M. TIENSTRA (1987). *Delft en de Oostindische Compagnie*, Amsterdam: Rodopi.

JAPIKSE, N. (1926). *Resolutiën der Staten Generaal 1576 tot 1609*. Old Series, Volume IX, The Hague: Nijhoff.

JONG, J.J. de (1985). *Met goed fatsoen. De elite in een Hollandse stad, Gouda 1700-1780*, Amsterdam: De Bataafsche Leeuw.

KOOPMANS, J.W. (1990). *De Staten van Holland en de Opstand: De ontwikkeling van hun functies en organisatie in de periode 1544-1588*, The Hague: Stichting Hollandse Historische Reeks.

KORTE, J.P. de (1984). *De jaarlijkse financiële verantwoording in de VOC*, Leiden: Nijhoff.

LESGER, C. (1992). 'Lange-termijn processen en de betekenis van politieke factoren in de Nederlandse houthandel ten tijde van de Republiek', *Economisch en Sociaal-Historisch Jaarboek*, 55, pp. 105-142.

MÉMAIN, R. (1936). *Le matériel de la Marine de Guerre sous Louis XIV: Rochefort, Arsenal modèle de Colbert (1666-1690)*, Paris: Librairie Hachette.

NAGTGLAS, F. (1888-93). *Levensberichten van Zeeuwen*. Two volumes, Middelburg: Altorffer.

PRAK, M. (1985). *Gezeten burgers. De elite in een Hollandse stad, Leiden 1700-1780*, Amsterdam: De Bataafsche Leeuw.

PRITCHARD, J.S. (1987). *Louis XV's navy, 1748-1762: A study of organization and administration*, Kingston: McGill-Queens University Press.

RODGER, N.A.M. (2004). *The Command of the Ocean: A Naval History of Britain 1649-1815*, London: Allen Lane.

ROMEIJN, A. (2001). *De stadsregering van Tholen (1577-1702). Bestuur en bestuurders van de stad Tholen vanaf de Satisfactieovereenkomst met prins Willem van Oranje in 1577 tot de dood van koning-stadhouder Willem III in 1702*, Giessen: Romeijn.

ROODHUYZEN-VAN BREDA VRIESMAN, T. (2003). 'Onfrisse Friese zaken: Een admiraliteit in opspraak', in: Akveld, Leo, and others, *In het kielzog: Maritiem-historische studies aangeboden aan Jaap R. Bruijn bij zijn vertrek als hoogleraar zeegeschiedenis aan de Universiteit Leiden*, Amsterdam: De Bataafse Leeuw, pp. 98-110.

SICKING, L. (2004). *Neptune and the Netherlands: State, Economy, and War at Sea in the Renaissance*, Leiden: Brill.

SOLL, J. (2009). 'Accounting for Government: Holland and the Rise of Political Economy in Seventeenth-Century Europe', *Journal of Interdisciplinary History* 40, 2, pp. 215-38.

SYMCOX, G. (1974). *The Crisis of French Sea Power 1688-1697: From the Guerre d'Escadre to the Guerre de Course*, The Hague: Nijhoff.

TERPSTRA, H. (1950). *Jacob van Neck: Amsterdams admiraal en regent*, Amsterdam: Van Kampen.

TORRES SÁNCHEZ, R. (2009). "La palanca de la riqueza. Las repercusiones del arsenal en el crecimiento de Cartagena durante el siglo XVIII", in GARCÍA HURTADO, M-R. (2009). *Ferrol año cero: Una ciudad de la Ilustración*, Ferrol: Embora, pp. 157-189.

UNGER, J.H.W. (1892). *De Regeering van Rotterdam 1328-1892*, Rotterdam: Van Waesberge.

VALENTYN, F. (1724). *Oud en Nieuw Oost-Indien*. Volume I, Amsterdam and Dordrecht: Gerard onder de Linden & Joannes van Braam

VOS, P.D. de (1931). *De Vroedschap van Zierikzee van de Tweede helft der 16de eeuw tot 1795*, Middelburg: Den Boer.

ZAMBON, S., and L. ZAN (2007). 'Controlling expenditure, or the slow emergence of costing at the Venice Arsenal, 1586-1633', *Accounting History Review*, 17, 1, pp. 105-128.

Provisioning the Combined Army in Germany, 1758-1762: Who Benefited?

4

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A British army served in western Germany during the Seven Years War as part of a much larger force, the so-called combined army, made up of contingents from many different German states, commanded by Prince Ferdinand of Brunswick (Savory, 1966 for the army in general; Mackesy, 1979 for a particular campaign). Contemporaries differed as to the aim of this Anglo-German force. To win over domestic opponents of any form of continental commitment, British ministers and their allies in the press argued that the purpose of the army was to tie down the French in Europe so that they would be less able to defend their scattered overseas interests.[1] But the initial dispatch of British troops probably owed more to the need to protect Britain's ally Frederick the Great; a substantial army in Westphalia shielded the King of Prussia's western flank (for differing interpretations, Middleton, 1985; Cardwell, 2004). Whatever the strategic logic, the original British commitment of only 8,000 men in 1758 had increased to around 22,000 by 1762. These British troops were heavily outnumbered by their German allies and auxiliaries: the total strength of the combined army by the end of the Seven Years War was more than 100,000 soldiers. The British government paid for this force, including the provisioning of nearly all of it. To subsist such a large body of soldiers was no easy or cheap undertaking, but it was made much more challenging

1 See, e.g., *Monitor, or British Freeholder*, 4 Aug., 6, 13 Oct. 1759; [Anon.,] *Reasons in Support of the War in Germany, in Answer to Considerations on the Present German War* (London, 1760). William Pitt himself famously claimed at the end of the war that America had been conquered in Germany: see William Cobbett and John Wright (eds.), *The Parliamentary History of England* (36 vols., London, 1806-20), xv. col. 1267 (9 Dec. 1762).

and expensive by the need to feed the army's horses, used not only by the cavalry, but also to transport guns, ammunition, equipment, baggage, and the much of the food provided for the troops (Little, 1981; Hancock, 1995: ch. 7).

If we know who funded this great logistical operation, who benefited from the money spent is much less clear. The records relating to the raising of money by the eighteenth-century British state are much easier to comprehend than the scattered and incomplete information available on expenditure. To trace military spending is a particularly difficult task. Central government records tell us something about the major contractors, and the money they received, but very little about the sub-contractors further down the supply chain. Nor do we know anything from central government records about the individual and collective purchases by officers and soldiers of the army. In an attempt to fill the gaps in the official sources, I have used the papers of leading contractors and commissaries, together with the testimony of members of the army that the whole supply process was meant to serve. More of such records await investigation, but I hope I have sampled enough to justify the conclusions reached.

The caution one might expect from a professional historian is not usually to be found in eighteenth-century comment on the provisioning of the combined army. Despite the complexities involved in tracing how money was spent, some observers during and just after the Seven Years War had no hesitation in pronouncing —almost always disapprovingly— on who benefited. John Shebbeare, a bitter opponent of any British continental commitment, and especially any German connection, had already attacked foreign subsidies as a drain on national resources before a single British soldier was sent to Germany. Only troops defending the home territories, he maintained, '*would prevent money escaping to our Ruin*' and ensure instead that it would *'still be circulating amongst us*'.[2] His argument was essentially that if British money were deployed in Germany, the only winners would be the Germans. The message was bound to strike a chord once the expense of the war in Germany took off, as it did dramatically from 1760: Sir Francis Dashwood, a long-standing critic of the Westphalian campaigns, noted in 1761 that the cost for the British exchequer had been less than £0.7 million in 1757, before a British contingent joined Prince Ferdinand's army;

2 [John Shebbeare,] *A Second Letter to the People of England. On Foreign Subsidies, Subsidiary Armies, and their Consequences to this Nation* (4th edn., London, 1756), p. 48.

whereas it was now more than £5 million.[3] In the same year, a cartoon conveyed the impression that the only gainers were Britain's German allies and auxiliaries.[4]

Other commentators, usually equally hostile to the war in Germany, pointed to the large profits made by British contractors and commissaries. The two categories were meant to be distinct: commissaries were officers appointed to procure supplies for the army; contractors were merchants who received an agreed fee for providing required items. But the distinction was often blurred in practice, as contractors might become commissaries, and vice versa. To critics of the German war, furthermore, both appeared to be unduly rewarded. The conspicuous wealth of contractors and commissaries returning home at the end of the war attracted adverse comment and reinforced public suspicions of wrong-doing at the taxpayer's expense. Samuel Foote, an English playwright, both reflected and fuelled popular animosity in his work *The Commissary*, first performed in 1765. Zachary Fungus, Foote's suitably named commissary, is said to have been '*a paltry mechanic*' who, thanks to the profits of his commissary's post, has become fabulously rich. At the end of the play Fungus is denounced roundly by another character: '*the fangs of you, and your tribe A whole people have felt, and for ages will feel*'.[5] Tobias Smollett's novel *Humphrey Clinker* (1771) was similarly acerbic, referring to '*commissaries and contractors, who have fattened … on the blood of the nation*'.[6]

This paper considers the claims made by opponents of the war, but also looks more broadly at the beneficiaries. Included in this category were indeed British commissaries and contractors, and also Germans —as commissaries and other army employees, contractors, merchants, shippers, and farmers— but Germany was not able to meet all the demands of such a large military force, which meant that opportunities opened up for other suppliers. Merchants and farmers in the neutral Dutch Republic, and even distant Russia, were involved in the process and gained financially from it. Some benefit may even have flowed as far as North America and the West Indian islands. But British and Irish farmers, merchants, and shippers gained, too. Nor should we forget the army itself. How successful was the provisioning of the combined army?

3 Centre for Buckinghamshire Studies, Aylesbury, Dashwood Papers, D/D/19/5.

4 British Museum, Department of Prints and Drawings, London, BM 3826, *Old Times advice to Britannia or English Reflections on G——m-n Connections* (1761).

5 Samuel Foote, *The Commissary. A Comedy in Three Acts* (London, 1765), in Richard W. Bevis (ed.), *Eighteenth-Century Drama: Afterpieces* (Oxford, 1970), pp. 263, 286.

Can its soldiers, the consumers of the foodstuffs assembled by contractors and commissaries, and supplied by local people, be counted amongst the beneficiaries?

1

British contractors and commissaries operating in Germany need not detain us for long, as their rewards have been considered fully by a variety of historians (see esp. Little, 1981; and Hancock, 1995: ch. 7). Senior commissaries and major contractors maintained that their profits were no more than their just deserts. Lawrence Dundas, who contracted to provide a waggon train for the army's provisions, and bread for the Hanoverian and Brunswick contingents, argued that he had '*undertaken a Concern where my whole Fortune is embarked, the Success of which Appears to me Extremely uncertain and if it turns out in any Shape to my Advantage it must be owing to the knowledge I have Acquired in that Business by 15 years Practice*'.[7] By the spring of 1762, the difficulties involved in honouring his commitments led Dundas to wish to give up all his contracts: '*It is impossible*', he told the treasury, '*for me to perform the Service in the manner I could wish*'. When, some months later, he was finally able to extract himself from the contracts, he was heartily relieved to be '*rid of the greatest plague I ever had*'.[8] But Dundas had earlier seen no contradiction between '*being usefull to the Publick and also doing myself some Materiall service*';[9] and, despite his later claims that he would be bankrupted if the money owed to him were not paid promptly, he left Germany a much richer man than when he arrived.[10]

6 Tobias Smollett, *The Expedition of Humphrey Clinker*, ed. Angus Ross (Harmonsworth, 1967), 65.

7 North Yorkshire Record Office, Northallerton, Dundas (Zetland) Papers, ZNK/XI/1/48, Dundas to George Ross, 26 April 1759.

8 National Library of Scotland, Edinburgh, Dundas Letter-book, 1761-2, Acc 8425, pp. 107, 211 (to Samuel Martin, 8 March 1762, to Peter Taylor, 22 July 1762).

9 North Yorkshire Record Office, Dundas (Zetland) Paper, ZNK/XI//2/3, Dundas to his wife, 25 March 1759.

10 See National Library of Scotland, Dundas Letter-book, Acc 8425, Dundas to William Faucett, 8 July 1762, for his claims of near bankruptcy; and Dundas to James Craufurd of Rotterdam, 14 June 1762. Henry Hulton, who investigated the whole commissariat to root out financial malpractices and corruption, noted that Dundas, after his return to England, *'lived with a princely magnificance'*: Yale University Library, New Haven, Connecticut, Hulton MSS, 'Matters relative to the conduct of the Commissariat which attended the Allied Army in Germany, 1760. 61, 62', p. 10.

The same was true of Richard Oswald, who contracted to supply bread, and bread waggons, for the British and Hessian parts of the combined army. Oswald worked hard to co-ordinate all the different elements of the supply process, to the extent that one of his colleagues was '*much troubled*' at Oswald's '*fatigues*', and offered to take over his contracts.[11] This seemingly generous offer suggests that such contracts were known to be lucrative. In the end, Oswald probably made some £112,000 from his bread contract alone –a sum equivalent, in 2010 values, to some £19 million (see Hancock, 1995: 237 & n, for mid-nineteen-nineties equivalent). Oswald, Dundas, and other Britons employed as contractors or commissaries in Germany must be counted as clear beneficiaries of the British government's spending on supplying the combined army with food.

In some cases, at least, British contractors and commissaries' profits were not simply derived from legitimate rewards. Serious corruption was suspected by Ferdinand of Brunswick, the combined army's commander-in-chief, and by the Duke of Newcastle, the first lord of the treasury. Newcastle was particularly concerned about the activities of Michael Hatton, a commissary, who in less than four months in 1760 ran up a bill for £753,000.[12] The Earl of Bute, Newcastle's successor, and an opponent of the war in Germany, was perhaps even keener to uncover abuses; he received a substantial report from the treasury secretary in June 1762.[13] The scale of the wrong-doing is impossible to quantify —we will never know how much of the money allocated to feeding the combined army was misappropriated— but a whole range of abuses were identified by the commissioners appointed by the treasury to investigate. Some of these abuses fall outside our immediate area of interest, as they centred on dubious practices of paymasters such as Peter Taylor, the son of a grocer, and himself a former silversmith, who returned to England at the end of the Seven Years War rich enough to buy two landed estates and secure a seat in parliament.[14] But others are very relevant to

11 National Archives of Scotland, Edinburgh, Oswald of Auchencruive Papers, GD 213/52, fo. 4, Mary Oswald to Richard Oswald, 2 Jan. 1761.

12 For Newcastle's concerns about Hatton, see Historical Manuscripts Commission, *Rutland MSS* (5 vols., London, 1888-1905), ii. 208, 209, 213, 216. For an earlier indication of his alarm, see Taylor and Pringle, 1838-40: i. 368.

13 Bodleian Library, Oxford, MS North c 2, fos. 280-320.

14 For Newcastle's concerns about Taylor, see Historical Manuscripts Commission, *Rutland MSS*, ii. 214, Newcastle to Granby, 27 May 1760. See also National Library of Scotland, Minto Papers, MS

our current concerns with the provisioning of the army. Frederick Halsey, a senior commissary, was amongst those whom the commissioners of enquiry accused of fraud.[15] Henry Hulton, one of the commissioners of enquiry, was bitterly upset that very few of the perpetrators were brought to book; he hinted strongly that some of the senior figures involved in supplying the army were protected by powerful political friends.[16]

Relatively little attention has been given to the German beneficiaries, not least because they fall into several categories. Some were employed by the army as commissaries, or in a variety of other senior ancillary roles. Christian Mayer, a magazine-keeper's assistant, was paid nine ducats a month in 1762 (about £5 4*s* sterling), while Olaf Pfeiffer, who helped supervise the loading of boats for transporting supplies up the River Weser, received sixteen ducats a month (roughly £9 6*s* in sterling).[17] Some of these German officials proved to be excellent appointments. Johann Philipp Fuhr, initially employed as a clerk, rose to be an assistant commissary and eventually worked with Hulton on investigations into fraud and peculation in the supply services. He was well regarded by the British treasury for his '*Merit towards the Public*', and was described by Samuel Martin, a treasury secretary, as '*in all respects a very proper Person*'.[18] But not all the German employees were so honest. At least a few took advantage of their situation to make additional money, usually in the form of bribes for colluding with contractors to accept sub-standard foodstuffs, or signing false receipts when contractors delivered short measure. One magazine keeper and his assistants even confessed to

11039, fo. 34, for the accusation that he *'retained One Per cent on all his Payments as his own fee under the Name of* Tell Money'; and Yale University Library, Hulton MSS, Henry Hulton's 'Matters relative to the conduct of the Commissariat', which is particularly critical of Taylor. Taylor himself argued that all the claims against him were motivated by resentment at his having *'by his Industry … 'raise[d] in the world'*: British Library, London, Letter-book of Peter Taylor, 1760-1, Add. MS 54,485, fo. 14. For Taylor's background and his subsequent entry into the House of Commons, see Namier and Brooke, 1964: iii. 517-18.

15 National Library of Scotland, Minto Papers, MS 11039, fo. 39.

16 Yale University Library, Hulton MSS, 'Matters, relative to the conduct of the Commissariat', esp. p. 167.

17 Centre for Buckinghamshire Studies, Howard-Vyse Deposit, D/HV/B/5/15D, 'A List of the Persons Employ'd by Danl. Wier Esqr. Commissary for the Weser Department with their Salaries to the first of September 1762'.

18 Ibid., D/HV/B/4/12 and 14, Samuel Martin to George Howard, 8 and 23 July 1762.

such '*flagrant Iniquity*' when investigated by Hulton and the other commissioners of enquiry; another, at Lippstadt, was similarly accused, yet managed to remain in post.[19]

The army also employed Germans in lesser roles in the army's ancillary services. The waggons provided by Dundas and Oswald were driven by locally hired labour. Earlier contractors, working for Ferdinand's army before and after the British contingent arrived, had struggled to recruit German drivers; in August 1758 David Mendes da Costa complained of the impossibility of finding local men to drive his waggons; '*thro' the whole Extent of the Country there are nothing else but Women to be Seen*'.[20] But Dundas found the larger number of drivers he needed. His December 1760 contract required him to provide 1,200 waggons, in most cases with one driver per waggon, but for the larger waggons, two. Bakers were employed by Oswald to help fulfil his bread contract —one of his bakeries had a staff of 300— as well as a host of clerks, porters, and labourers, all hired locally, who were based in the various magazines, of which Oswald established no fewer than fourteen in north west Germany during the course of the war (Hancock, 1995: 231-3).

Germans also made money as contractors, or sub-contractors, supplying food for soldiers and horses. British commissaries often reached agreement with local merchants for the goods needed by the army. In November 1762, for instance, Daniel Wier, the chief commissary at Bremen, entered into a contract with Schröder, Behrens, and Wetzlar, a company of German merchants, for the supply of 10,000 quintals of rye meal, '*in good Sacks, each Sack to contain 2 Quintals or 220 lb net Bakery weight; & such Sack of Meal to be paid at the rate of 6 Dollars, in Ducats at 2 Doll*s*. 54 Grots Bremen Currency P Ducat*'. The opportunities for excessive profit seem to have been considerable, as not every commissary was as attentive to details as Wier. The previous month, Sir James Cockburn made a contract with Froichen and Riebenstein, another German merchant firm, for the same large quantity of rye meal and sacks, but '*without the Price either for Meal or Sacks being mentioned therein*'.[21] Samuel Martin particularly disapproved

19 Ibid., D/HV/B/4/11, Samuel Martin to the Marquis of Granby, 2 July 1762; National Library of Scotland, Minto Papers, MS 11039, fo. 39, 'An Abstract reduced to Heads of Mr Fuhr's Letters & Narratives of *Frauds and Irregularities* committed in administering the Services of Extraordinaries for the Army in Germany', Oct. 1761.

20 British Library, Letter-book of David Mendes da Costa, 1757-9, Egerton MS 2227, fo. 71.

21 Centre for Buckinghamshire Studies, Howard Vyse Deposit, D/HV/B/7/13, Thomas Pownall's *'Raport général de l'Etate actuel des Dépôts de consommation & de ceux qui sont établis pour en faire le grandes Magasins'*, 22 Nov. 1762.

of the behaviour of some of the German contractors, '*such as Uckerman, Maimberg, Redeker Rose, Balcke & Company*', whom he had no hesitation in calling '*defrauders of the Public*'.[22]

Besides German merchant houses, accustomed to large-scale supply operations, we need to include a host of lesser German contractors amongst the beneficiaries of British spending on supplying the combined army. Ship-owners and their crews benefited from the army's need to use river transport to move food to the troops. In just one month in the summer of 1762, 193 payments of freight charges were made to various German shippers who agreed to carry goods up the Weser to the army's advanced posts. In a single week in the following September, 8,746 ducats were paid out to ship-owners for the transit of hay, oats, wheat, rye, and meal on the same river.[23] With the army dependent upon the shippers, it will come as no surprise to learn that the commissioners of enquiry concluded that the '*Price of Freight upon the Weser hath been exorbitantly unreasonable*'.[24] Unsurprisingly, other local civilians took advantage of the army's need for their services. Peasant farmers, often described in contemporary British accounts as *Boors*, provided many of the army's foodstuffs, such as those who agreed with a German commissary to provide '*a months forage for the Art*^{y} *horses*' in January 1761. On this occasion, the local artillery commander appears to have been '*very pleased*' with the arrangement; but on others officers feared that the peasant suppliers imposed upon the army, striking a bargain that was highly advantageous to the *'Boors'* and far from good value for the army.[25]

German peasants and tradesmen of various descriptions also sold goods directly to the army's officers and soldiers. William Todd, a British infantry corporal, recorded in his dairy that at Hamm in June 1761, '*numbers of Sutlers & Markettenters,* were, *going about the Camp selling Defferent sorts of Necessary, both Victuals and Liquor etc.'*. The following October, Todd noted the same process at another camp, to which '*a'many Marketenters & Sutlers'* brought '*Bread, Liquors etc to sell'* (Cormack and Jones, 2001: 152-3, 202). When the troops were in winter quarters, billeted on towns and

22 Ibid., D/HV/B/4/10, Martin to Howard, 2 July 1762.

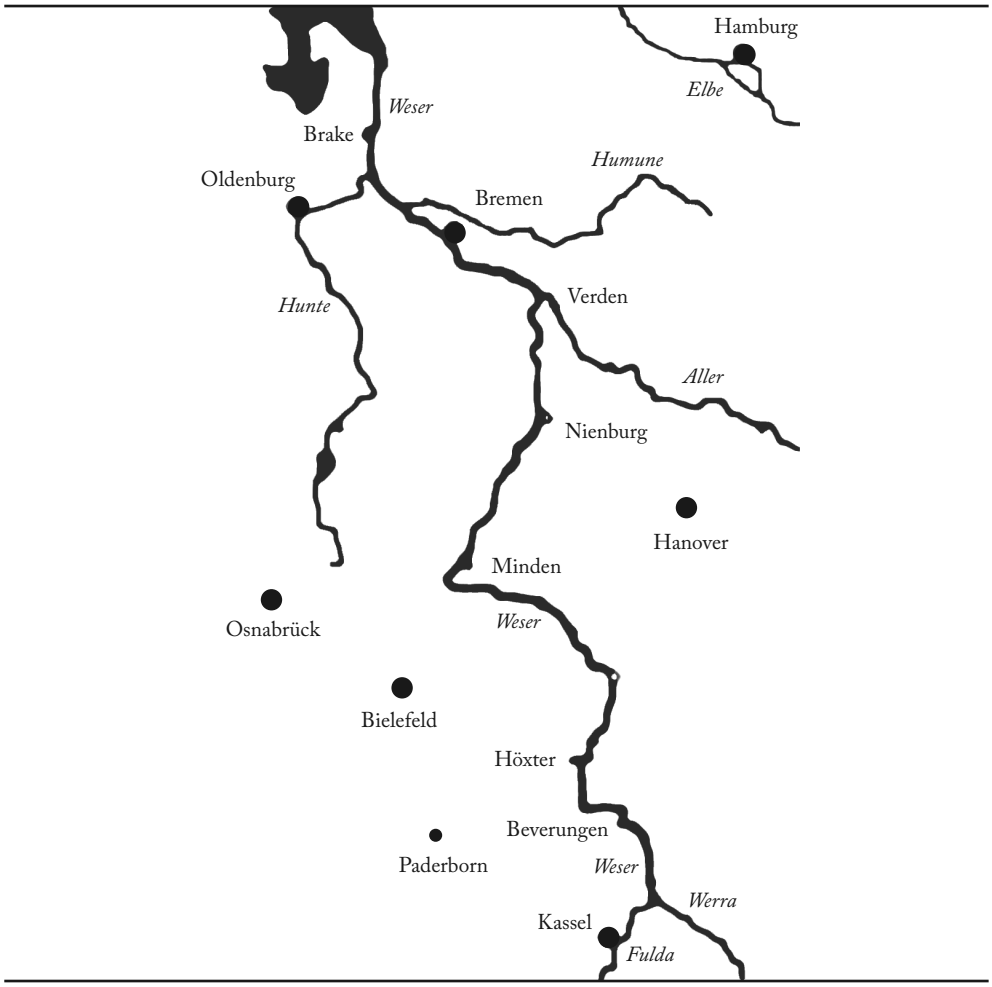
23 Ibid., D/HV/B/5/9 and 19, accounts relating to transport costs on the Weser.

24 National Library of Scotland, Minto Papers, MS 11039, fo. 29.

25 National Archives of Scotland, Oswald of Auchencruive Papers, GD 213/52, Mary Oswald to Richard Oswald, 24 Jan. 1761; National Archives of Scotland, Dunglass Muniments, GD 206/2/497, Robert Hall to John Piper, n.d.

villages, further opportunities presented themselves for local people to sell foodstuffs to the army. Todd wrote that he and his fellow soldiers lived well in Geseke, near Lippstadt, as the householder on whom they were quartered had provided them with vegetables and other supplements to their rations. When the troops prepared to leave the town, Todd wrote that the householder and his wife were sorry to see them go '*as they got Money so fast of the Soldiers*' (Cormack and Jones, 2001: 131).

Figure 1: The River Weser



All this might seem to suggest that Shebbeare was right, and that the benefit from British government spending on provisioning the combined army was largely felt in Germany itself. But the macro picture looks much less favourable, from a German perspective. We need to recognize that the presence of the British-funded army was far from an unalloyed joy for the local inhabitants. If some Germans were financially advantaged, many others lost out. Even those employed by the army, or in contractual relations with it, did not necessarily benefit as much as one might imagine. The army —like all armies, perhaps— was very tardy in paying those it owed money. Dundas, as we have seen, complained bitterly about late payment, and made the most extravagant claims about its impact on him; but the Germans who worked for the army, or supplied it, seem to have suffered much more. In July 1762, Samuel Martin intervened to remonstrate with General Howard, then the senior commissary, at the long non-payment of the well-regarded Fuhr. In October, the ships' captains on the Weser pressed for their outstanding money, and Prince Ferdinand himself wrote to Howard to criticize the failure of the commissariat to settle with the boatmen on the river, who had not been paid since the preceding April.[26]

The German peasants, though much criticized in some British sources as money-grabbing, often found that soldiers took what they wanted without offering any form of payment. Perhaps the worst plundering of the local inhabitants took place shortly after the British contingent arrived in Westphalia, and before the commissariat and the contractors were able to establish a regular supply system. At the end of August 1758, a British lieutenant-colonel noted in his journal that his men could not be prevented from *'marauding'* (Wood, 1997: 50); one his regimental colleagues likewise confessed a few days afterwards that his troops had '*Marauded the Country round, having no Bread*'.[27] It was no coincidence, surely, that this was the very time when Hatton, as a senior commissary, was admitting that his stock of provisions was dangerously low.[28] Two months later, Lord George Sackville, in command of the British cavalry, offered

26 Centre for Buckinghamshire Studies, Howard Vyse Deposit, D/HV/B/4/12, 25, Martin to Howard, 8 July 1762, and Thomas Higgins to Howard, 18 Oct. 1762, D/HV/B/9, Ferdinand to Howard, 15 Oct. 1762. See also, for the problems with paying the bakers at Münden, D/HV/B/8/5, F. L. Meyer to Sir James Cockburn, 10 Oct. 1762.

27 National Archives of Scotland, Dunglass Muniments, GD 206/2/495/8, Robert Hall to his brother, 13 Sept. 1758.

28 British Library, Leeds Papers, Egerton MS 3443, fo. 62, Hatton to Lord Holdernesse, 9 Sept. 1758.

a fuller explanation. The commissariat, he told William Pitt, were unable to find hay, so '*we have been obliged to forage the country, and the peasants have been cruelly pillaged; for if you once give an army leave to provide for itself, it is difficult to confine them to the taking only what is allowed, or necessary for its support*' (Taylor and Pringle, 1838-40: i. 369). But pillaging was not just a symptom of teething problems in the supply system; it continued to be a feature of the war through to its end. In June 1761, Corporal Todd recorded a party of troops going from their camp near Hamm and compelling the local peasants to '*give us a refreshment of such Victuals as they had*' (Cormack and Jones, 2001: 153).

If plundering owed much to the lack of food reaching the troops, it also contributed to the problems of extracting supplies from Germany. As a war zone, Westphalia was perhaps bound to be ravaged by the contending armies, partly to supply themselves, but also to deny their enemy access to fresh provisions. Lieutenant-Colonel James Adolphus Oughton, commanding the British Thirty-seventh Regiment of Foot, lamented the fate of the '*poor Peasants ... reduced to the utmost distress*' (Wood, 1997: 50). His regimental colleague Robert Hall was no less moved: '*May I die*', he told his brother, '*if it wou'd not make your Heart bleed to See this Poor Country*'. Nor was the damage just short-term; Hall added that the ability of the land to produce future crops had been affected, as the farmers had not been able to save their seed from theft by the army. A few months later, Hall returned to the same theme, '*the Misery and Desolation that reigns in this fine Country is unexpressible*'.[29]

But it was not just pillaging that contributed to the exhaustion of the country; in many places there were simply not enough agricultural surpluses to feed such large numbers of men as the combined army fielded. To put the problem in perspective: at its largest, the combined army contained more people —especially if we add to the soldiers the men, women, and children '*camp followers*'— than all but a handful of European cities (see esp. de Vries, 1984; and Blanning, 2002: 124-5). The comparison is apt, since the army, like a city, consumed vast quantities of foodstuffs but produced very little food itself. Even the most productive agricultural area would have struggled to supply such a large military force; and no-one could have described mid-eighteenth-century Westphalia in these terms. Michael Hatton, who had been a commissary in the previous war, recognized this problem soon after the British troops arrived in

29 National Archives of Scotland, Dunglass Muniments, GD 206/2/495/9 and 20.

the summer of 1758: he reported that Lord Holdernesse, one of the British secretaries of state, was '*right in y^r^ Idea of farming in this Country; I am surprised it has furnish[ed] so much, but how the Army can subsist here, I cannot conceive*'.[30] Dundas said much the same in the war's last campaign, by which time many areas had been repeatedly distressed by attempts to secure foodstuffs. As the combined army made headway against the French near Kassel, Dundas remarked despairingly that whatever advantages had been gained, '*it will decide nothing, [as] it is impossible to support our Troops where they are long*'.[31]

Germany, then, simply could not meet all the army's requirements. That had been the case when the combined army began its first campaign, and the situation became worse every year as the demands asked of an exhausted country increased. A particular problem for the British contingent in the combined army was the local shortage of wheat, which was grown less extensively in Germany than elsewhere, as rye-bread was more popular than wheat-bread in Germany. British commanders were reluctant to allow their men to eat rye-bread, partly out of prejudice against the unfamiliar, but more laudably because it became unfit for consumption very quickly, especially in the damp weather that seemed to be prevalent in Westphalia for much of the year (Hancock, 1995: 231 & n). To meet the British demand for bread made from wheat-flour was impossible if reliance was placed exclusively on German sources. Oats, needed to feed the horses, were also in short supply, and the British commissariat quickly recognized that it needed to look beyond Germany if the army were to be properly provisioned.

The most obvious and proximate source was the Low Countries, and the army did indeed draw many of its supplies from the Dutch Republic. Oswald even established a magazine at Deventer to help fulfil the requirements of his bread contract. The commissariat also purchased Dutch oats in large quantities at various points in the war; Daniel Wier at Bremen was still referring to his ability to buy oats from Holland in the summer of 1762. But Wier's opinion of the quality of Dutch oats was damning; they were '*a poor starv'd husky Grain, whose small Kernels are quickly rotten & destroy'd by being heated*', he reported to Howard. At times, Dutch oats were also very expensive. To overcome the problems involved in purchasing Dutch oats, the treasury contracted with Amyand and Company, London merchants with Russian connections, to buy a stock of oats at Riga. Some of the army's provisioning requirements may have been

30 British Library, Leeds Papers, Egerton MS 3443, fo. 62, Hatton to Holdernesse, 9 Sept. 1758.

31 National Library of Scotland, Dundas Letter-book, Acc 8425, Dundas to Craufurd, 1 July 1762.

met from even further afield. A German merchant who tendered for a contract, sometime in 1762, offered to provide 4,500 lbs of *'Coffee from Martinico'*, recently captured by the British from the French, as well as 11,000 lbs of *'Carolina Rice'*.[32] The umbilical cord of the combined army quite possibly stretched not just hundreds of miles east into the Baltic, but thousands of miles west across the Atlantic.

But, contrary to what critics like Shebbeare claimed, British and Irish farmers, merchants, and shippers were perhaps the main beneficiaries of Germany's inability to supply all the combined army's requirements. The ability of British farmers to produce cereals for export might come as a surprise; this was the very time when Britain, with a rising population and high levels of urbanization, became a net importer of grains. But British cereal exports rose during the war (Daunton, 1995: 44, fig. 2.4), and we can safely assume that a good portion of than rise can be explained by the demands of the combined army in Germany. The profits to be made by selling to merchants who contracted to supply cereals for the army seem to have been sufficient to attract British farmers who might otherwise have been content to provide for the growing domestic market. We know from different sources that British troops fighting in Portugal in 1762 were provisioned to a large extent from home; ships arrived at the mouth of the Tagus loaded with English corn for the use of the Anglo-Portuguese forces.[33] Portugal was perhaps even less able to feed a military force than north-western Germany; but the scale of military operations in Westphalia was much greater than in the Iberian Peninsula, so the demand for foodstuffs was correspondingly larger.[34]

We know from Dundas's letter-book that he personally ordered oats from England to help feed the horses in his waggon train.[35] Evidence in the papers of members of the commissariat suggests that ships regularly crossed the North Sea to bring cargoes of British wheat, barley, and oats for use of the army. Daniel Wier, the commissary at Bremen, recorded, for instance, the arrival of a convoy of no less than sixty ships from England on 24 June 1762.[36] An affidavit relating to one such ship, the *Wakefield*, from

32 Centre for Buckinghamshire Studies, Howard Vyse Deposit, D/HV/B/5/7, 14, 22.

33 The National Archives of the United Kingdom, Kew, State Papers Portulgal, SP 89/56, 209, Edward Hay to Lord Egremont, 26 June 1762; British Library, Loudoun Papers, Add. MS 44,068, fo. 218.

34 I am not aware of a detailed study of the British supply system in the Portuguese war. For the Spanish logistical efforts in the same campaign, see González Enciso, 2006.

35 National Library of Scotland, Dundas Letter-book, Acc 8425, Dundas to Richard Pierson, 1 May 1761.

36 Centre for Buckinghamshire Studies, Howard Vyse Deposit, D/HV/B/5/4, Wier to Howard, 24 June 1762.

Wisbech, in Cambridgeshire, gives us an indication of the range of people who had a stake in this trade. Not only were the master, Charles Low, and his crew paid for transporting the cargo, but the ship-owner, Robert Standige of London, also benefited from the freight charges. Walton and Stone, the London merchants who were selling the oats and barley on board, were no less advantaged, to the tune of nine pence per quarter of the cereals carried, or more than £500 (the equivalent of nearly £86,500 in 2010 values).[37] The profits of the producers of the barley and oats, presumably from Wisbech's East Anglian hinterland, are not know, but we must assume that the prices they were offered were competitive enough for the farmers to agree to sell their cereals to Walton and Stone, or their local agent. Nor should we forget Ireland's contribution, and the profits its farmers and merchants probably reaped from supplying the combined army. Ireland was a major source of provisions for the Royal Navy and troops serving overseas, especially of what were termed '*wet*' goods, mainly meat and dairy products (see Baker, 1971: ch. 3, and, more generally, Dickson, 2005). One German contractor's tender suggest that large quantities of Irish butter were purchased for the use of the troops.[38]

2

We turn finally to the combined army itself. To what extent can it be counted as a beneficiary of the supply system designed to sustain it? I am not here referring to financial benefit; we have already looked briefly at the profits made by officers in the commissariat. Our focus now is on the effectiveness of the supply system. Put bluntly, did it keep the soldiers properly fed and able to fulfil their military purposes? Read the self-congratulatory judgements of some of the leading contractors, and you would imagine that the whole process ran smoothly. Dundas, in particular, preened himself on a job well done. As he began his contract, he announced to one of the senior commissaries that he had '*always performed to the Satisfaction*' of his military masters. As the 1760 campaign drew to a close, he was similarly up-beat: '*our Affairs*', he told his wife, '*have allways gone well to the entire Satisfaction of every Person*'.[39] Even when he decided to

37 Ibid., D/HV/B/5/13A.

38 Centre for Buckinghamshire Studies, Howard Vyse Deposit, D/HV/B/5/22.

39 North Yorkshire Record Office, Dundas (Zetland) Papers, ZNK/XI/1/159 and ZNK/XI/2/11.

give up his contracts, on the grounds that they were too onerous, he informed Martin at the treasury that '*no Person cou'd Possibly do more than I have done to perform the Service in the way it ought to be done…, and if you enquire from People of all Ranks in the Army who are disinterested you will find this so*'.[40]

Dundas's reference to '*disinterested*' persons is revealing. As he congratulated himself, he acknowledged that not everyone saw matters in the same favourable light. Oswald's wife, who accompanied him to Germany for much of his time there, also recognized that the army was not overjoyed with the way it was supplied. She told her husband in August 1761 that his handling of his contracts was much praised, even by officers who cursed '*the Contractors in General*'.[41] If we look at the experience of those on the receiving end of the provisioning process, we can see much evidence of dissatisfaction. We have already seen that there was a good deal of plundering of the local population, and that this owed much to failures in the official supply system. Robert Hall, whose testimony has been cited before, commented regularly on his unit's difficulties. On 13 November 1759, he wrote to his brother with ironic understatement that '*our Poor Men & Horses [were] not overstockd with Forrage (I believe that have forgot what Oats are)*'. Three years later, at the end of the fighting in 1762, Hall returned to '*the Misery and Desolation that reigns in this fine Country*', noting that '*every Necessary of Life is so hard to get & so dear, that may I die if another Campaign woud not entirely ruin me*'.[42] For the common soldiers, who had only their meagre pay to call upon, the situation was of course much worse; they had very little chance to augment their official rations with local purchases when prices rocketed due to shortages.

Corporal Todd's diary opens a window on the sufferings of the rank and file of the army. We have seen that in some of his quarters, Todd was able to buy vegetables from the householder on whom he was billeted, and purchased other necessaries from sutlers who visited the army's camps. But it was more usual for him to experience acute difficulties. In May 1761, while in cantonment, Todd noted that '*we live but very poorly here as every thing is very dear as our Army is com'd into all the Towns & Villages all round causes every thing to be very scarce*'. The next month he was equally gloomy, '*we can get very*

40 National Library of Scotland, Dundas Letter-book, Acc 8425, Dundas to Martin, 22 March 1762.

41 National Archives of Scotland, Oswald of Auchencruive Papers, GD 213/52, fo. 127, Mary Oswald to Richard Oswald, 7 Aug. 1761.

42 National Archives of Scotland, Dunglass Muniments, GD 206/2/495/15 and 20.

Little to Subsist upon as every thing is risen so that the Private men gets Little more than their bread to Live upon'. In July, the situation was so bad, Todd recorded, that '*the want of the Common Necessarys of Life causes a'many of our Men to grow very weak & faint*'. He explained that very few sutlers visited their encampment, and those that did charged more than the soldiers could pay. Most tellingly, Todd pointed out that '*our Bread Waggons cannot come to us until we get some way settled*', which meant that the troops were not even receiving their basic bread rations (Cormack and Jones, 2001: 135, 143, 157).

Further entries in Todd's diary reveal many other occasions when the bread ration was delayed. In August 1761, near Blomburg, Todd was pleased to record the eventual arrival of the Bread waggons: '*the Bread was Serv'd out directly',* he explained, '*which was a Seasonable relief to us as we have had no Bread for those several days past*'. In September, the story was much the same: '*We are in the Utmost wants of all kinds of provisions & Necessarys, & a'many of our men begins to fall sick*'. A few days later, he noted that '*our Bread Waggons comes very Uncertain*'. The tale of woe continued into November, when Todd wrote that the bread ration sometimes did not reach them for up to four days, '*& when it comes it is Mostly Mouldy, not fit to Eat*'. He added, however, that '*those that is almost famish'd is glad to get it any ways*'. A week later Todd delivered another indictment on the supply of bread, all the more powerful for its being understated: '*our Bread waggons seldom can get up in time that it causes us to be generally in the greatest wants*' (Cormack and Jones, 2001: 179, 198, 199, 217, 220).

To be fair to the commissaries and contractors, it was no easy matter to keep the army regularly and efficiently supplied. We have already touched upon the fundamental problem of a lack of local resources to sustain the troops. If the army remained in one place for too long, the immediately surrounding area would soon become exhausted and the price of provisions would rise steeply. But if the army moved too rapidly, problems of a different kind could ensue; to keep up with it, and maintain a supply chain, proved quite a challenge. Mary Oswald noted this in one of her letters to her husband. It was lucky, she remarked, that the head-baker at Paderborn had a stock of bread in hand, for at short notice the troops stationed near the town had been ordered to advance, and would soon be out of reach of easy supply from the bakery, which she imagined would now have to close.[43] Mobile bakeries, in which Oswald invested,

43 National Archives of Scotland, Oswald of Auchencruive Papers, GD 213/52, fo. 48, Marty Oswald to Richard Oswald, 8 Feb. 1761.

provided a partial solution, but if the army moved any distance from the large fixed bakeries that he had invested much more money to establish and staff, it became much more difficult for him to guarantee a regular and reliable supply of bread (Hancock, 1995: 231).

Nor was it easy to maintain the waggon trains that Dundas and Oswald assembled, and on which the supply of many of the troops ultimately depended. A particular difficulty was the shortage of good quality oats for the horses. In the absence of suitable oats, the horses became enfeebled and the efficiency of the waggon train was severely undermined. Dundas wrote in April 1761 that '*The want of all Forage, except bad Oats has brought the horses into the most miserable Condition that can be imagined they dye every Day in Numbres*'. The next month he argued that '*the Horses who remain have Suffer'd So much by real want of proper Subsistance, and are become So low and week, that to Save Many of them, I must send a great Number, to grass and give them a little Rest*'. At any given time, furthermore, waggons would be out of service and under repair; wear and tear inevitably took its toll even on the sturdiest of wooden carriages. Dundas also lost waggons permanently to enemy attack; in August 1762 a hundred were captured by the French, reducing the size of his main train to 900 waggons.[44]

The limitations of the local transport network added to the difficulties. Robert Hall recognized the problems in moving waggons, and any other horse-drawn transport, after heavy rain, when the roads, which were in reality little more than unmade tracks, turned into quagmires.[45] Corporal Todd was similarly willing to acknowledge the problems created by the bad weather, on one occasion noting that the failure of the bread waggons to reach his unit was attributable to the roads being '*so very deep*' with mud (Cormack and Jones, 2001: 217). Hence the importance attached to the Weser as a supply artery. But the river was not always the answer, as it was also affected by adverse weather conditions; Dundas noted in April 1761 that the water in the Weser was '*now so low*' that it was no longer possible to transport oats by boat to his main waggon depot.[46]

But if the shortages and suffering of the troops owed much to the daunting logistical problems with which contractors and commissaries had to grapple, some of the fault

44 National Library of Scotland, Dundas letter-book, Acc 8425, Dundas to Pierson, 9 April and 14 May 1761; for the captures see the note added to breakdown of his waggon contract, 12 May 1762.

45 National Archives of Scotland, Dunglass Muniments, GD 206/2/495/16, Hall to his brother, 2 Jan. 1761.

46 National Library of Scotland, Dundas letter-book, Acc 8425, Dundas to Pierson, 9 April 1761.

undoubtedly lay with the contractors and commissaries themselves. Dundas attributed the poor quality of the oats that so undermined the horses of his waggon train to collusion between the local contractors and the magazine-keepers. He was convinced that '*the People who deliver such abominable Stuff as these Oats are and those who received them ought both to be punished*', adding for good measure that '*what the army has suffer'd by that Villany is not to be described and it is Time to put a Stop to it*'.[47] A year later, Samuel Martin of the treasury was similarly indignant at such sharp practice and called for the guilty parties to be punished by court martial. When justice could not be obtained, he hoped '*to defeat at least the ends of their Machinations, and disappoint them in the Profits of their knavery*'.[48]

We should also note the apparently chaotic nature of the commissariat for much of the war. Dundas complained to Hatton in April 1761 that different commissaries were demanding waggons from his train without any central co-ordination, '*if every one of the Commissariat are to give orders for a hundred or two hundred Waggons, we Shall run into a Confusion*'. He repeated the charge the following year, as he prepared to withdraw from his contracts: '*nothing here but Confusion*': Dundas wrote from Höxter to his business associate James Craufurd of Rotterdam.[49] Dundas, as we have seen, was perhaps particularly prone to find fault in others, and overlook his own; even so, he seems to have had a point. The commissioners of enquiry also highlighted the lack of any effective central control over the whole provisioning operation. The ever-attentive Commissary Fuhr noted the '*Negligence of the British Commissaries*', who failed to act when malpractice was discovered.[50] Gilbert Elliot, one of the lords of the treasury, who took a close interest in the work of the enquiry, was particularly condemning of Colonel Richard Pierson, superintendent of supplies from April 1760. Pierson's predecessor, Thomas Orby Hunter, appears by all accounts to have been diligent and conscientious; he explained that he woke at six every morning and worked until midnight on commissariat business.[51] Pierson, by contrast, Elliot wrote, '*never examined or settled*'

47 National Library of Scotland, Dundas Letter-book, Acc 8425, Dundas to Pierson, 9 April 1761.

48 Centre for Buckinghamshire Studies, Howard Vyse Deposit, D/HV/B/4/11, Martin to Howard, 2 July 1762.

49 National Library of Scotland, Dundas Letter-book, Acc 8425, Dundas to Hatton, 16 April 1761, to Craufurd, 14 June 1762.

50 National Library of Scotland, Minto Papers, MS 11039, fo. 29.

51 British Library, Newcastle Papers, Add. MS 32,887, fo. 414, Hunter to Newcastle, 31 Jan. 1759.

any magazine accounts during his tenure, which Elliot considered to be a '*great cause of the abuses*' that pervaded the supply system. Elliot attributed Pierson's shortcomings in part to his acting in '*a double Capacity*', as serving soldier, with his regiment, and at the same time chief commissary, charged with supervising the whole provisioning service. Elliot noted that in such a situation that it was perhaps inevitable that military men like Pierson would '*prefer their Duty as Soldiers to all other tyes of a civil nature*'. As a result, Elliot concluded, Pierson neglected his commissariat responsibilities and the service was not under proper control during his period in office.[52]

3

What conclusions can we draw from this brief study of the combined army's supply system between 1758 and 1762? One point that emerges strongly is the international nature of the operation. The army may have been British-funded, but its provisioning depended upon a great variety of players in many different countries; in Britain and Ireland, in Germany itself, and also in the neutral Dutch Republic, Russia, and even North America and the West Indies. Perhaps it was appropriate that a multi-national army should spawn a multi-national chain of supply; but earlier eighteenth-century armies and supply systems had been no less cosmopolitan. The campaigns of the Duke of Marlborough's Anglo-Dutch-German forces in the War of the Spanish Succession had relied heavily on the purchasing skills of Sir Solomon de Medina, the chief army contractor, born in Bordeaux, brought up in the Dutch Republic, and knighted by William of Orange in 1700 (van Creveld, 1977: 30). A second point is that many different types of people benefited from the provisioning operation, including farmers, merchants, shippers and their numerous employees, such as labourers, drivers, bakers, or ships' crews. The small army of commissariat employees should also be counted as beneficiaries, usually simply through their legitimate wages and salaries, but sometimes as a result of their accepting bribes to connive at fraud or peculation by unscrupulous contractors.

My final point relates to those who did less well out of the money expended on supplying the combined army. The British government unsurprisingly worried about the escalating costs of the war in Germany, and equally unsurprisingly attributed it to negligence, bad practice, and corruption on the part of those involved in the provisioning process. Ministers in London considered themselves to be losers, as well

52 National Library of Scotland, Mino Papers, MS 11039, fos. 64 and 87.

as the propertied taxpayers whose interests they saw themselves as protecting. What the detailed and voluminous reports compiled by the commissioners of enquiry failed to stress, however, was the way in which defects in the supply system damaged two less well-protected groups rather more directly. The first was the local people living in Westphalia, many of whom were exposed to the terrifying ordeal of pillaging because the army was short of food. As Corporal Todd told a young German woman whose family lost the meal she was cooking to a party of hungry soldiers, '*we had been in great wants of Victuals … Otherwise we would not a taken theirs from her*' (Cormack and Jones, 2001: 148). The second set of acute losers, as Todd's words indicate, were the soldiers of the combined army themselves. His diary provides a rare insight into the life and struggles of a common soldier in the mid-eighteenth century. What it shows is that sometimes the troops ate reasonably well, or at least reasonably well by the standards to which they were accustomed. But Todd's diary makes equally clear that at various points in the German war, British and allied soldiers were short of food, sometimes to the extent that illness reduced their military effectiveness. It will perhaps come as no surprise that while some profited, especially those well-placed and already rich, many of the powerless at the bottom of the pile suffered; it is, after all, an old, old story, albeit one with topical resonance. But if contractors such as Dundas and Oswald patted themselves on the back for a difficult task accomplished in what they considered a generally successful way, the victims of the defects in the provisioning process –largely ignored by contemporary politicians and pamphleteers, and even by modern historians– deserve to be recognized.

Modern Works Cited

BAKER, N. (1971). *Government and Contractors: The British Treasury and War Supplies, 1775-1783*, London: Athlone Press.

BLANNING, T. C. W. (2002). *The Culture of Power and the Power of Culture: Old Regime Europe, 1660-1789*, Oxford: Oxford University Press.

CARDWELL, M. J. (2004). *Arts and Arms: Literature, Politics and Patriotism during the Seven Years War,* Manchester: Manchester University Press.

CORMACK, A. and JONES, A. (eds.) (2001). *The Journal of Corporal Todd, 1745-1762,* Stroud: Army Records Society.

DAUNTON, M. (1995). *Progress and Poverty: An Economic and Social History of Britain, 1700-1850*. Oxford: Oxford University Press.

DE VRIES, J. (1984). *European Urbanization (1500-1800)*, London: Methuen

DICKSON, D. (2005). *Old World Colony: Cork and South Munster, 1630-1830*, Cork: Cork University Press.

GONZÁLEZ ENCISO, A. (2006). 'Spain's Mobilization of Resources for the War with Portugal, 1762', in H. V. BOWEN and A. GONZÁLEZ ENCISO (eds.), *Mobilizing Resources for War: Britain and Spain at Work during the Early Modern Period*. Pamplona: EUNSA.

HANCOCK, D. (1995). *Citizens of the World: London Merchants and the Integration of the British Atlantic Community, 1735-1785*, Cambridge: Cambridge University Press.

LITTLE, H. (1981). 'The Commissariat and the Supply of the Combined Army in Germany during the Seven Years War (1756-1763)'. University of London: unpublished PhD dissertation.

MACKESY, P. (1979). *The Coward of Minden: The Affair of Lord George Sackville*, London: Allen Lane.

MIDDLETON, R. (1985). *The Bells of Victory: The Pitt-Newcastle Ministry and the Conduct of the Seven Years War*, Cambridge: Cambridge University Press.

NAMIER, Sir L. and BROOKE, J. (1964). *The History of Parliament: The House of Commons, 1754-1790*, London: HMSO.

SAVORY, Sir R. (1966). *His Britannic Majesty's Army in Germany during the Seven Years War*, Oxford: Clarendon Press.

TAYLOR, W.S. and PRINGLE, J. H. (eds.) (1838-40). *The Correspondence of William Pitt, Earl of Chatham*, 4 vols, London: J. Murray.

VAN CREVELD, M. (1977). *Supplying War: Logistics from Wallenstein to Patton*, Cambridge: Cambridge University Press.

WOOD, St. (ed.) (1997). *By Dint of Labour and Perseverance: A Journal Recording Two Months in Northern Germany Kept by Lieutenant-Colonel James Adolphus Oughton, Commanding 1st Battalion 37th Regiment of Foot, 1758*, Chippenham: Society for Army Historical Research, Special Publication, No. 14.

Victualling Louis XV's armies. The Munitionnaire des Vivres de Flandres et d'Allemagne *and the military supply system*

5

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After the two decades of relative peace and financial recovery that followed the death of Louis XIV (1715) the French monarchy in the middle of the eighteenth century was again involved in a series of long and costly international conflicts. While the Crown's annual expenditure had remained fairly stable at around 200-220 million *livres tournois* (lt.) since the collapse of John Law's Scheme (1720), funding the War of the Austrian Succession (1741-1749) and the Seven Years' War (1756-63) required marshalling considerable new resources. A conservative estimate of the additional cost comes to a total of 2 billion lt., and even up to 2.5 billion or more when the *dette flottante*, or the outstanding unfunded debt at the end of the war, is taken into account.[1]

In the case of the War of the Austrian Succession, which is the best documented, the total additional war-related costs (850 million) were spent on a larger army and navy, as well as on the subsidies disbursed to French allies. On average, during this conflict each of the three ministers of War, Navy and Foreign Affairs saw their budgets more than double (see *Table 1*). In 1745, current war-related expenditure peaked at 266 million —against 114 million in peacetime— thus making up 80 per cent of the monarchy's total spending. If one adds the cost of servicing the old debt —which added another 60 million per annum— the total of the war related disbursement

1 These figures are obtained by comparing the French expenses prior to the war and total expenses during the war. They exclude the last year of each conflict and therefore refer to the periods 1741-48 and 1756-62. They are indicative rather than definitive and absolute but probably the most accurate.

peaked in 1744 at an amazing 98 per cent of annual income, and probably more since in wartime the monarchy delayed paying a growing portion of its civil expenses.

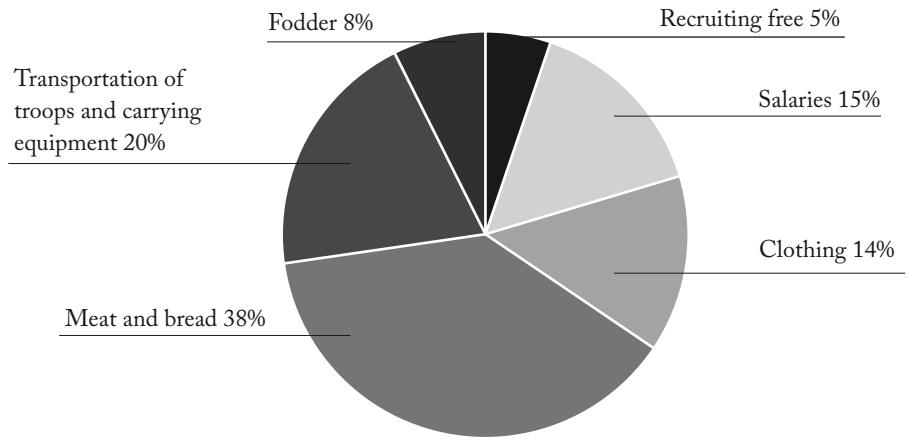
Table 1: French expenditure, 1739-1751

	1 Army	*2 Navy & Galères*	3 Foreign Affairs	**A Total war related**	**B Total French Expenses**	Growth (per cent)	**A/B War related expenses**	**C Debt service**	**A+C/B (per cent)**
1739	*78,9*	*12,7*	15,9	**114,7**	**224,8**		51	**76.9**	**85**
1740	*79.3*	*15,3*	19,2	**113.8**	**212,2**		54	**59.2**	**82**
1741	*102.9*	*18,2*	39,2	**160.4**	**255,9**	21	63	**59.2**	**86**
1742	*122.50*	*22.1*	38,7	**183.2**	**271,1**	6	68	**60.9**	**90**
1743	*152.8*	*29,6*	33,2	**215.6**	**307,3**	13	70	**63.4**	**91**
1744	*178.6*	*40,3*	33,9	**260.2**	**326,2**	6	80	**60.8**	**98**
1745	*171.8*	*29,3*	55,4	**265.7**	**342,8**	5	78	**61.4**	**95**
1746	.	.	33,7	**226.9**	**329,9**	-4	69	**54.3**	**85**
1747	.	.	53,1	**252.6**	**358,2**	9	71	**55.1**	**86**
1748	.	.	38,6	**237.8**	**360,7**	1	66	**65.1**	**84**
1749	*106.6*	*25*	49,9	**181.6**	**367,8**	2	50	**132.2**	**85**
1750	*106.2.*	*31.6*	27,4	**165.2**	**263,4**	-28	63	**73.4**	**91**
1751	*96.9*	.	20,8	**117.8**	**239,9**	-9	35	**68.4**	**54**

As with any conflict, a large share of the additional money raised by the State went to supply troops with bread, meat, forage, carts, horses, powder, weapons, and so forth. Details about military expenditure in the first year of the War of the Austrian (1741), reveal that most of the 23 million increase in the military budget, which rose by one third from 64 to 87 million, was spent on the formation of the *armée de Bavière* and the *armée de Westphalie*. The recruitment of new soldiers to supplement the core of veterans who had been kept on the books in peacetime represented an important initial

disbursement. At a cost of 60 lt. per new soldier to pay for the recruitment fee and uniform, raising 31,600 volunteers came to 1.9 million. The clothing of 120,000 militia men drafted to take the place of the garrisoned veterans who joined the armies added another 1,8 million. Yet data shows that the military expenditure was above all devoted to feeding (7,5 million) the troops, as well as transporting them to their armies, along with the equipment and the artillery train.

Graph 1. Expenses for the raising of two armies in 1741



A memorandum written in 1763 by one of the *munitionnaires des vivres*, who supplied bread to French armies, reveals that purchasing flour and baking the bread for the soldiers in the various theatres of operations came to 106 and 113 million lt. in the years 1744-48 and 1757-62, or, on average, 23 and 19 million lt. per year. Since these statistics referred to approximately the same number of men under arms, feeding the armies with bread would have amounted to 18 per cent of the total additional funds raised during the five last years of the War of the Austrian Succession and 10-12 per cent of the extraordinary costs of the six military campaigns of the Seven Years' War. While these figures should not be taken at face value, they indicate that, overall, the costs for the supply of bread to the troops during Louis XV's wars did not increase, a phenomenon which raises a number of questions about the contemporary criticisms about the efficiency of the system of supply by enterprise, or the so-called *munitionnaires*.

To address this important issue, historians have relied on a limited body of primary sources, usually partisan literature which tells us less about the actual business of supplying troops than the disarray of the military and the public during the Seven Years' War. After a promising start, a series of defeats in Germany in 1758 followed by a partial default in 1759 fuelled unprecedented criticisms of the Bourbon monarchy's institutions in general and its *constitution militaire* in particular. In such a difficult context, the government's reliance on private contractors became the subject of mounting censure. The purpose of this study is to revisit the debate in France about military supply systems with the help of a unique collection of papers gathered by Joseph Marquet de Bourgade about the activities of the *Munitionnaire général des vivres de Flandres et d'Allemagne* (MGVFA). It will also examine the ways in which the complex relationship between the State, its contractors and public opinion shaped Choiseul's decision to abandon enterprise for direct administration (*régie*) by the state at the end of the Seven Years' War.[2]

1. Systems of military supplies

As was the case of Britain, the government of Versailles in the 1740s was caught unprepared by the return of warfare on a large scale. On both sides of the Channel, an unprecedented period of peace had reduced the size of the forces and their supply was limited to troops dispersed between garrisons both at home and in the colonies. The system adopted by both states, which sought to minimize costs and dissatisfaction, was flexible but, overall, it relied on a number of private contractors whose services

2 Details about the activities of the company known as the *Munitionnaire des Vivres de Flandres et d'Allemagne* (here abbreviated MGVFA) are taken from a collection of copies of documents (accounts, letters and memoranda sent to the minister of war, the comptroller general of finance, the *commissaire général des vivres* Paris Duverney, the *banquier de la cour* Paris Montmartel, the *intendant de l'armée* Foullon, etc.) gathered by Jacques Marquet de Bourgade, director of MGVFA. These papers, which cover the years 1758-63 but also contain references to the MGFVA's activities in the War of the Austrian Succession, are stored in the Bibliothèque nationale de France, *Manuscrits Français* 8013-8018. They can be supplemented by documents from the *Archives du Service historique de l'Armée de Terre*, in Vincennes, in particular in sous série 1 M: 1 M 230, *Mémoire historique sur le service des vivres de Flandre et d'Allemagne pendant la guerre de 1757 à 1762 inclus*, 329 ff. and 1 M 1791-8, comte Guibert's *Mémoire sur les vivres* (1er mars 1776), 13 f.

were usually limited to supplying local needs. With the outbreak of the War of the Austrian Succession, the French government had to adjust its peacetime system to the needs of larger armies. Maintaining two armies in Germany, each of which were bigger than the largest provincial cities in France, and which were often on the move in hostile foreign territory, required a level of organisation, imagination and coordination beyond the capabilities of most small contractors. On the eve of the French Revolution, the *Encyclopédie méthodique* devoted to *Art militaire* still expressed the mid-eigtheenth century official view that the minister could not rely on '*munitionnaires* […] *who only have notions relative to the supply of garrisons,* [for they] *find everything difficult or impossible, even in countries full with food and crossed by rivers*'.[3]

In the early years of the war of the Austrian Succession (1741-43) a system of *régie*, or direct administration by government, was introduced to supply the armies of the Rhine and of Bohemia but was found unsatisfactory and, apparently, too expensive. In 1744, *munitionnaires généraux,* modelled on Louis XIV's system of war supply, were reintroduced. With this system, the state limited its contacts to a dozen main intermediaries who enjoyed a monopoly over a range of services to the armies in one of the theatres of war. They relied in turn on a large number of French and foreign subcontractors, not to mention the resource of contributions levied on the enemy. For instance, Joseph-Michel Cadet, the *munitionnaire général* who entered in 1755 into a contract to supply the French army in Canada and support the population's needs in case of bad harvests. For that purpose, he had to purchase and organise regular shipments of goods to and from Canada, France and the West Indies.[4] Yet the *régie* system was not totally abandoned by government. It was maintained for the supply of forage and, more generally, when contractors were unwilling to offer a service they found too risky and therefore difficult to cost.

Like most financial ventures in early-modern France, the signatory of the *marché*, or contract, entered into with one of the ministers for war or navy, was a front man. Claude Jollet, the *bourgeois de Paris* who, in 1755, signed the *marché* for the supply of bread and rice to the armies of Flanders and Germany, was acting on behalf of a company —the *Munitionnaires généraux des vivres de Flandres et d'Allemagne* (MGVFA)— run by financiers of the highest rank who brought their administrative and commercial

3 Louis Félix Guynement de Keralio, *Encyclopédie méthodique. Art militaire* (Paris-Liège, 1784-1797, 4 vols), vol. 3, p. 286, article *Munitions*.

4 On this famous *munitionnaire* see the latest monograph by A. Côté (1998).

know-how, as well as their financial power to the business of supplying food, essentially bread, to Louis XV's troops sent in the North. Its director, Jacques Marquet de Bourgade (1718-84), was one of the most prominent financiers in eighteenth century France whose advice was much sought after by ministers. In the last years of the American War, as *intendant général du Trésor* (1781-83), he was appointed personal advisor to controller general Joly de Fleury on issues relating to credit. Bourgade was the son of Maurice Marquet (1683-1780), a very successful financier who began as a wheat merchant in Bordeaux and entered the business of provisioning Louis XIV's armies in the difficult years following the memorable Great Winter of 1709. During the War of the Austrian Succession the expertise of Bourgade's father was again called upon and he soon became one of the greatest contractors. He had business partnerships with the two companies of *munitionnaires* which supplied bread to the royal armies in the North (Flanders and Germany) and the South (Provence and Italy). He also had financial interests in the business of military hospitals and in the *régie* for the supply of fodder. Bourgade probably took over from his father, who retired at the end of the war, once the company's accounts had been finally settled with the state.

The MGVFA was very much a family business. Other members of the Marquet family were also represented in it by Bourgade's two younger brothers. In addition to his interests in the company that supplied bread, Jean-Daniel Marquet de Montbreton (1724-98) administered the collection of direct taxes as *receveur général des finances* of the *généralité* of Grenoble (1759-80) and later acquired the same office in the *généralité* of Rouen (1781-90), one of the wealthiest regions of France, with an annual tax return of 10 milions lt. (ca. £400,000). The purchase of this office soon after Paris de Montmartel's retirement was probably useful to the *munitionnaires* who needed cash and had thus a grip on the money paid in by taxpayers. The other brother was Pierre Isaac Marquet de Peyre (1721-79), who ended his career under Louis XVI in one of the coveted and prestigious posts of *fermier général*, and lost all of his fortune in the construction of lavish buildings, was a very active partner. In 1759, he was one of the three members of the company sent to the French armies in Germany to supervise the purchase and storage of flour, the baking and distribution of bread, and all related payments.[5]

5 See the instructions written by Marquet de Bourgade for his brother in Fr. 8013, ff. 261-271, *Notes pour mon frère concernant le service des vivres de la campagne 1759 qu'il doit être chargé de diriger*.

Among the other partners, it is worth noting the presence of Madame de Pompadour's intendant, Jean-Baptiste-Denis Nesme (d. 1761).[6] For patronage at court was an essential component for the success of the business of the *munitionnaire général*. On two occasions, at least, Bourgade had to intervene and pen arguments to oppose the demands of powerful individuals, the likes of finance minister Silhouette and even the king himself, who asked for an interest (*croupe*) in the business in favour of their *protégés*. Although their names do not appear in the *marché* signed in 1755 —a contract which was renewed each year between 1744 and 1764— it is possible that Bourgade, or one of his brothers, also acted on the behalf of the famous Paris brothers. The four Paris brothers, whose family came from Dauphiné, in the south-east of France, had reached the summit in the world of financiers by supplying Louis XIV's armies. Under the Regency of the duc d'Orléans (1715-23) they were heavily involved in the various schemes which sought to manage the Crown's debts. Their hostility to John Law's ideas had earned them a brief exile but the Paris brothers had been recalled after the Mississippi bubble with the task of liquidating the *Système*. In June 1726, the *révolution de cour* which ended with the appointment of Louis XV's preceptor, cardinal de Fleury, to the post of *Premier Ministre*, constituted a blow for the Paris brothers who were again sent to exile, while one among them, Joseph Paris Duverney who had been the principal financial advisor in the duc de Bourbon's fallen administration, was imprisoned in the Bastille for 16 months.

In the early 1730s, following the dismissal of their enemy, controller general Le Peletier des Forts, the Paris brothers progressively went back into business, and with a vengeance. Although they all had a variety of interests in the collection of the king's

6 Other partners included: François-Marie Prévôt (1697-66), *munitionnaire de la marine et des galères*, and his son Etienne Prévôt (1728-1822) ; Robert Millin (1698-1776) who also had an interest in the *Munitionnaire des vivres d'Italie and the société des hôpitaux d'Italie*, and his son Jérôme-Robert Millin (1733-94) who became *receveur général des finances* of Rouen; Augustin Bouret de Villaumont, (1713-60), brother of the famous *fermier général* François Bouret, *trésorier général de la Maison du Roi* (1743-56) and *munitionnaire des vivres de l'armée d'Italie*, Jacques-Nicolas La Salle Dampierre (1723-93), Louis Paris de Treffonds (1713-73), later *receveur général des finances de Rouen* (1761-73), François Choula de Bussy, Jacques-François Choula de Biencourt, and Nicolas-Anne Delisle. For the family and professional background of these financiers see Christine Favre-Lejeune, *Les secrétaires du roi de la Grande-Chancellerie de France: dcitionnaire biographique et généalogique, 1672-1789* (Paris, 2 vols, 1986) et Thierry Claeys, *Dictionnaire biographique des financiers au XVIIIe siècle* (Paris, 2 vols, 2009).

taxes and invested their money in numerous commercial ventures, the two youngest brothers were to hold key positions in Louis XV's government. Jean Paris de Montmartel (1690-1766) recovered his former position as *garde du Trésor royal* (1730-55) and, on the eve of the War of the Austrian Succession, he was appointed *banquier de la Cour* (1740-58) for the remittances abroad of subsidies to France's allies. The short War of the Polish Succession (1733-35) saw the return of Joseph Paris-Duverney (1684-1770) to business. His expertise as *munitionnaire* of the army of Flanders and Germany under Louis XIV earned him the post of *commissaire général des vivres* (1733), which he held until the end of the Seven Years' War. As such, Duverney supervised under the secretary of state for war all military supplies and was the principal intermediary with the *munitionnaires*. The logistical problem of regularly feeding troops —an army of 120,000 men meant a daily consumption of 1,000 sacks of flour each weighing 200 pounds— to avoid desertion and keep up the troop's fighting spirit explains why the *commissaire général des vivres* meddled a lot in the planning of military campaigns, and even in the appointment of commanders. Such civilian intervention in the formation of strategy was not always welcomed by officers. Old maréchal de Noailles, head of one of the most powerful aristocrat families at court and personal advisor to Louis XV, who had commanded French troops in the Peninsula during the War of the Spanish Succession and presided over the *Conseil de Finances* under the Regency, despised Duverney so much that he labelled him the 'Flour General'.[7]

2. The 'munitionnaires' and public opinion

With the renewed outbreak of war in the mid eighteenth century, the financiers were once again the targets of public scorn. To fund the War of the Austrian Succession Louis XV chose to raise taxes to a level unprecedented since the death of the Sun King. All of his subjects paid more tax than they could probably remember and indeed the highest per capita rate of the century in proportion to GDP.[8] By the end of the war, the nobility and landowners were subjected to a new tax, the *vingtième*, or 5 per

7 Quoted in the *Mémoires de Madame du Hausset.*

8 On these fiscal reforms and figures about taxation see J. Félix (1999). The figures in this book update and correct those published in P. O'Brien and P. Mathias (1976: 601-50) and complement J.C Riley (1987). On the subject of these statistics and their interpretation see also R. Bonney (2004: 191-215).

cent of their net revenue, the first of its kind ever introduced in peacetime and the first to specifically target *privilégiés*. Its aim was to finance a *caisse d'amortissement (sinking fund)* to redeem the state's unfunded debt owned mostly by contractors. We know for instance that in 1752 the Crown issued 1,8 million of bonds bearing 3 per cent interest to settle its debt with the company which held the contract for the supply of bread in the North, in other words the company of Bourgade's father.[9] These fiscal measures and the benefits enjoyed by financiers during the war suffice to explain the unhappiness on part of the public in the early 1750s and demands that the additional revenue should not be wasted on excessive spending or new opportunities for financiers to further expand their fortune.

It is not clear if the *munitionnaires* were targeted in pamphlets during the War of the Austrian Succession. Few polemical texts have survived from the 1740s. This decade was above all characterised by the publication of academic, if critical, books, Montesquieu's *Spirit of Laws* being perhaps the best example. Pamphlet literature about state finances seems to have blossomed in the mid-1750s and the 1760s up until Terray's partial bankruptcy (1770). In this editorial context, the publication, in 1756, of maréchal de Saxe's *Mes Rêveries* was a watershed for the public image of military contractors who were the subject of much criticism. Although the *munitionnaires* argued that this posthumous book was written when Saxe was still a young officer, it was interpreted by the reading public as expressing the opinions of the older Saxe who had become a national hero for his Flanders campaigns during the War of the Austrian Succession and, by that time, had only praise for military contractors and the importance of their services in securing French victories.[10] In the wake of the Seven Years' War, however, reforming military officers like the comte Guibert found their prime inspiration in Saxe's *Rêveries*. Like him, Guibert criticised the burdens of contractor's commercial interests on strategy and sought to infuse the soldier with a new sense of patriotic and frugal virtues that put military prowess before a full stomach. Although Saxe and Guibert's literary works annoyed contractors, the inflammatory

9 The capital of this debt was to be sunk by the *caissse d'amortissement* in 10 to 12 years, by means of an annual lottery. It was fully paid by 1759.

10 Dampierre de La Salle, who was one of the partners in the MGVFA, pointed out in his *Mémoire sur une question relative aux troupes de terre par un ancien munitionnaire* (1790) that Saxe's *rêveries* was a youthful work which contradicted his praise, as a commander of the French armies in Flanders during the War of the Austrian Succession, of the service provided by the *munitionnaires des vivres*.

vocabulary of Grub street writers was more damaging. Ange Goudar, for instance, argued that the monopoly the *munitionnaires* enjoyed and the number of *commis* they employed were one the five factors that made war was more damaging to France than to any other country. Goudar argued that,

> *Most of our war projects fail because it is in the interest of the compagnie des vivres that they do not succeed. Their contract would be terminated too early if a campaign brought war to an end; but everyone knows that their fortune depends on prolonging the war as long as possible. Is it not a thought contrary to public security that a company of* maltôtiers *(vultures) have the full power of surrendering the state to the enemy, for in the end they can do that if they so wish*.[11]

The visibility and, thus, the assumed profitability of the *munitionnaires*' business were additional causes that aroused discussion of their activities. As we will see from the details given below, the contractors of military supplies were very large companies, probably the largest private organisations in France, second only to the *Ferme générale* which collected half of the French monarchy's ordinary revenue or about 150 million per annum. During the Seven Years' War, the total turnover of Bourgade's company was 150 million, or on average 25 million per annum (see *Table 2*). The wartime *marché* renewed each year between MGVFA and the Crown involved supplying the armies of Flanders and Germany —which peaked at 280,000 men— with bread (and also biscuit and rice) during the campaign and in winter quarters, as well as providing *pain de munition* for the garrisoned troops on the Atlantic coasts. Overall, in the six campaigns of the war, the *munitionnaire* administered the purchase, transport and transformation of 470,000 tons of goods.

11 Ange Goudar, *Les intérêts de la France mal entendus, dans les branches de l'Agriculture, de la Population, des Finances, du Commerce, de la Marine, & de l'Industrie, Par un Citoyen* (Amsterdam, 3 vols, 1756), vol. 2, pp. 161-162.

Table 2. Total expenditure of the Munitionnaire des Vivres de Flandres et d'Allemagne, 1755-1764[12]

	Garrisons in Flanders and Germany	Service des Côtes de l'Océan (garrisons along	Service for the armies of Flanders and Germany	*Total*
1755	3,117,200	-	-	*3,117,200*
1756	2,747,104	518,499	-	*3,265,603*
1757	2,306,666	868,373	11,089,919	*14,264,958*
1758	1,555,061	2,265,509	23,500,088	*27,320,658*
1759	1,773,750	1,226,946	22,057,537	*25,058,233*
1760	1,576,358	1,215,958	20,510,677	*23,302,993*
1761	1,180,124	914,139	28,400,839	*30,495,102*
1762	1,190,729	968,322	26,801,029	*28,960,080*
1763	4,405,004	399,024	2,651,214	*7,455,242*
1764	2,535,225	-	-	*2,535,225*
Total	*22,387,225*	*8,376,774*	*135,011,305*	*165,775,306*

As a business man, Bourgade was eager to dispel any criticisms that could jeopardize the respectability of the MGVFA in the eyes of the public and, above all, of the government. In 1760, for instance, Bourgade reacted swiftly when the consistency and colour of *pain de munition* was altered. He wanted to prevent the spreading of usual rumours among the troop that the *munitionnaires* were making money on the back of the soldier (and potentially killing the troops by supplying unhealthy food) by adding more rye than was authorised. On this occasion, Bourgade informed Foullon, *intendant of the army*, the civil officer attached to the commander of the army who liaised with the *munitionnaires*'s representatives, that the modification resulted from wet weather conditions in France which had affected the quality of recent harvests

12 BNF, Fr 8020, *Bordereau général des recettes et dépenses en deniers et des consommations en effets tant pour le service des garnisons que pour celui de campagne depuis 1755 jusqu'en 1764*. These figures were those finally settled at the end of the war, once all the accounting procedures had been done. There is a slight discrepancy with the *marchés* because the handling costs were estimated on the basis of previous years while the accounts were based on actual expenses.

when sacks of wheat were constantly drenche.[13] Bourgade also successfully intervened against the implementation for his company's employees of a military disciplinary law which he feared would bring his business into disrepute.[14] In 1761, he used all his power of patronage to make sure that the *Parlement* of Paris did not further defer registering the letters of nobility granted by the king to Nicolas-Anne Delisle, one of the MGVFA partners, for the crucial role he had played on the battlefield in feeding the soldiers and especially in assisting with army retreats. This matter was significant for Bourgade because in its remonstrances against new taxes and loans, the *Parlement* of Paris had been very vocal against the benefits of the financiers. In the end, Bourgade had no difficulty in winning this battle as he got the support of the influential individuals he wrote to, like the prince de Conty, the duc d'Ayen or the duc de Richelieu and, through them, was able to win over two *présidents* and twelve *conseillers* in the *Parlement*.[15] Despite public anger and jealousy, the *munitionnaires* were able to resist attacks. The service they provided was not only crucial for the armies: the logistical and financial infrastructure was too complex to venture any change that would cause potentially fatal disruption to the supply system.

The supremacy the two Paris brothers enjoyed over French finance and the supply of Louis XV's armies are another main cause for the growing public anger against the financiers' wealth and political power at court. In the military and fiscal crisis of 1758, cardinal de Bernis, then *de facto premier ministre,* developed a hostility towards Paris de Montmartel's unwillingness to risk his fortune and to seek new methods of financing the war effort.[16] The indelicacies and frauds committed by some of Montmartel's staff in Germany, and publically acknowledged at the time, caused Duverney's great reputation, which he had acquired during the War of the Austrian Succession, to suffer in the same way that his brother's did.[17] It was further tarnished by French military setbacks in

13 BNF, Français 8013, Copie de la lettre écrite par M. Marquet de Bourgade à M. Foullon, intendant de l'armée de Soubise le 9 février 1729, f. 50 vo-51 vo.

14 BNF, Français 8015, *Ordonnance du roi pour empêcher les malversations des employés dans les armées, du 18 février 1761*, f. 117 vo and passim for Marquet's memoranda.

15 BNF, Français 8017, f. 275-275 vo.

16 K.P. Wormeley (1902, 2 vols, vol. 2: 195, 225, 239).

17 Mauvillain, who was *trésorier de l'armée* in Germany abused his position to make an illegal profit of almost 3 million lt. by using Paris-Montmartel's remittance to speculate on the exchange of currencies, See R. Waddington (1899-1914, 5 vols, vol. 1) where he mentions disputes between military officers and Duverney in relation to army supplies.

Germany and the ensuing debates, both at court and among officers, about individual responsibilities. Although the *munitionnaires* were keen to praise the quality of their services, the system was not immune from scandals. The sheer size of the company made it difficult to prevent fraud and the making of illegal profits. For instance, speculative activities on the purchase of wheat in Germany in 1757 were revealed when Millin de Grandmaison, who probably hold a stake in the MGVFA, had a disagreement with his business partners Lenormand de Mézières et Duchesne.[18]

Therefore it should come as no surprise if Choiseul, at the end of the Seven Years' War, received a memorandum which denounced the excessive profits enjoyed by the *munitionnaires* and linked them to Duverney's position in the Ministry of War who, as *'the administrator (once devoted to their service) and even their partner'*, had the power to *'arbitrarly determine'* the price of military rations. Although Bourgade's reaction was to mock the shortcomings of this hostile text, he was undoubtedly related to Paris Duverney —the latter's only daughter had married one of Bourgade's brother— who had full responsibility over the pricing of military rations. Since the French government did not use an open tendering process for contracting military supplies, administrators and *munitionnaires* were bound to arouse suspicion of collusion and illicit profit. Evidence suggests, however, that Duverney did not systematically support the *munitionnaires'* interest*s* at the expense of the state. For instance, at the start of 1759 he advised the maréchal de Belle-Isle, secretary of state for war, to reject the MGVFA's offer to supply bread at 41.5 deniers per ration and maintain the previous year's tariff which was cheaper (39 deniers), thus saving the government half a million on the cost of the military campaign. To be sure the aim of this intervention, which took place in the context of rising wheat prices, was not to reduce the benefit made by the *munitionnaire* but to compensate the Crown for the unexpected profit the contractor had made in 1758 on the purchase of wheat for the king. In fact, Duverney and the contractors always justified the necessity that they made a profit, like any other private business, and insisted that it had to be large enough to ensure that the *munitionnaire* would not go bankrupt and be forced to cease supplying goods. In the absence of competitors, their monopoly over the supply of troops meant they could reduce their margin, which was indeed in the fiscal interest of the state, and still make substantial profit on quantity.

18 Mentioned in A. Corvisier (1992-94, 4 vols, vol. 2) and P. Dupieux (1934, 95: 116-148).

In any case, Duverney was not willing to enter into detailed discussions about the pricing of the *marché*. In addition to the uncertainties of estimating handling costs during the campaign, which, as he observed, would be accounted for afterwards, he maintained that it was neither in the interest of the minister nor of the *munitionnaires* to debate prices at length. Above all the price of the ration had to be determined by the need to sustain the contractor's willingness and ability to offer his credit *'as it is likely that la finance (the finance ministry) will be in arrears in paying him'*. The author of the anonymous memorandum mentioned above was not utterly wrong when he denied contractors the title of *munitionnaires,* whose activities were normally defined by the task of *'supplying food'*, and described them as a financiers who were *'advancing his money and credit'*.[19] In 1759, Duverney's comments were highlighting the severe cashflow problems the monarchy experienced in the Seven Years' War and how they affected the nature of the contractual relationship between government and suppliers, *'All I can say is that the commitments that the munitionnaire de Flandres et d'Allemagne will contract are frightening, and I can but tremble for him for all kinds of reasons'*.[20]

3. The business of the 'munitionnaires des vivres' and their profits

While Bourgade could only praise the anonymous memorandum's objective of imagining ways to introduce new and cheaper methods for victualling Louis XV's armies, he was less than impressed by its calculations and the conclusions its author drew about the nature of the *munitionnaires'* business. In effect, contractors normally provided three kinds of services for the state: they purchased goods and supervised the processing of these goods which transported and delivered to the troops. The *munitionnaire* was certainly only too aware, as we will see later, that the monarchy's financial difficulties in the Seven Years' War put considerable pressure on the company to become a banker for the king. Yet, the *munitionnaire*'s main activities were above all commercial and administrative ones. In 1758, Bourgade summed up for the secretary of state the very essence of his company's activities:

19 BNF, Fr. 8017, *Plan d'une administration oeconomique*, ff. 10-41.

20 BNF, Français 8013. Copy of a letter written by M. Paris Duverney to maréchal de Belleisle, 4 February 1759, f. 28.

> *We should add that a company supplying food can, in some ways, be compared to a very substantial trade company since in the food business the principal purpose is to buy and sell goods, such as the 650,000 sacks of wheat which represent one year's consumption during war time, empty sacks to contain it, 20 to 24,000 quintals of rice, 100,000 sacks of oats to feed the horses employed to transport victuals, the purchase of those 5,600 horses and secondary requirements.*
> *The difference in this comparison is that in the food business, the main and principal product, which is wheat, is first converted into meslin by mixing wheat and rye into flour, and then into bread, that is distributed in endless daily rounds, so that where it will be eaten is always uncertain, because that depends on the movement of troops, and also that the goods pass through various hands and thus the resulting accounting operations are very complex and subject to procedures which are both long and difficult to carry out*.[21]

Buying, moving and processing wheat into flour and then into bread, and gathering all accounting documents for the presentation of their accounts to the government, was so much the daily task of the *munitionnaires* and their partners, that the price of the sack of meslin which the government agreed to pay (from which was calculated the price of the military ration) incorporated all the costs carried by the contractor as well as his profit. The overall profit, called the *arbitraire*, was made of a fixed profit at 3 lt. per sack and an additional variable profit of 40 sols per sack (2 lt.). Although the 40 sols were paid by government to the contractor for each sack of flour purchased and turned into military rations, the net profit of the contractor varied with the actual price of the wheat, the 40 sols being a premium to compensate loss due to variation in the price of wheat during the year for which the *marché* was contracted. On the basis of a provision of 600,000 sacks of flour per annum in wartime, the contractor's certain profit on the purchase of wheat was 1,8 million and the maximum legal variable profit on price variation was 1,2 million. Given that contracts were signed every year in the winter months, prior to the beginning of the military campaign, the likelihood of bad harvests threatening the *munitionnaires*'s liability to fulfil his part of the contract was minimal. A memorandum written for controller general Silhouette to justify the costing of the *marché* for 1759 acknowledged the fact that in previous years the

21 BNF, Fr. 8017, in the conclusion of Marquet's reply to the *Plan d'une administration economique*.

munitionnaire had been able to purchase wheat at a cheaper cost than the one agreed by government on the basis of information sent by the provincial *intendants*. There is little doubt that the *munitionnaire*, who was acting as a wholesale merchant, had the necessary infrastructure in place to buy wheat at a competitive price. Thanks to his facilities to store wheat and his cashflow, the contractor was always able to purchase wheat at the best moment. By spreading his sources of supply between various provinces, he also minimized the effect of his purchase on local prices. The MGVFA, as will be seen shortly also made a profit on the transportation of wheat and bread which is more difficult to estimate.

Bourgade's memorandum gives a unique insight into the various components that made up the price of the sack of flour, which, for the campaign of 1759, was costed by the state at 29 livres 5 sous. *Table 3* suggests that the cost of raw wheat represented only a quarter of the price of the sack paid to the contractor.[22] Such figures, which multiplied by a factor of four the price of wheat once it was processed into *pain de munition*, suffice to explain some of the criticisms against the *munitionnaires des vivres*. The bulk of this additional expenditure was made on handling costs (ca. 40 per cent), in particular on the salaries of the substantial numbers employed by the *munitionnaires*. About 1 million lt. was disbursed to administrative staff employed in Paris and in the provincial offices, and those who followed the armies. This sum probably included higher salaries paid to the directors in the Parisian headquarters and qualified staff, such as treasurers, inspectors and so forth employed in the provinces and attached to the armies. Yet, on the basis of a yearly salary of 1,000 lt., which was twice that of a qualified worker, the *munitionnaires* must have provided employment to hundreds of *commis* and workers, not including various agents paid for specific tasks. To these salaries must be added 600,000 lt. per annum paid to the 1,100 bakers who, on a rota basis, baked bread in the bakeries that were built at a short distance from the troops, and repaired equipment, as well as sums disbursed for workers occupied in milling wheat and fuelling bakeries' ovens with wood.

22 BNF, Fr. 8013, ff. 234-237 vo, *Calculs de renseignements pour justifier de la fixation des Prix du Traité du Munitionnaire pour les armées pendant la présente année 1759*. The manuscript also contains several estimates about the cost of different services to the armies as well as *marchés* and relating estimates and calculations which are updated according to changes in the government's decisions regarding the number of troops for the campaign.

Table 3. Pricing the sack of flour for the armies of Flanders and Germany (campaign 1759)

			Price in *livres, sous, deniers*[23]	Price in *deniers*	%
1. Sack of flour	With arbitrary (profit and premium)	*(5,321,525*	*13 lt. 10 s.*	*3,240*	*46*
2. Purchase		*(295,640)*	*15 s.*	*180*	*3*
	Waste at 2 per cent		5 s. 6.d.	66	
	Commission fee		5 s. 6 d.	66	
	Bagging, weighing, tying up, and sealing		4 s.	48	
3. Transport	To the army warehouses, inland or on the frontiers	*(591,280)*	*1 l. 10 s.*	*360*	*5*
4. Handling		*(4.434.604*	*11 l. 5 s.*	*3*	*38*
	Details and estimated cost for 397,187 sacks (basis 1757-1758)	*Lt.*			
	Staff of the two armies and in the Paris offices, for 15 months	*1,221,600*			
	Bakers (1,100)	*610,268*			
	Milling	*295,640*			
	Wood for baking bread	*394,187*			
	Warehousing costs and incidental waste	*197,093*			
	Purchase of sacks and wear and tear	*300,000*			
	Salaries of the 2 munitionnaires' deputies	*120,000*			
	Lump sums, offices rentals and costs, post	*300,000*			
	Remittances to the armies (cost of exchange and banker's commission)	*240,.000*			
	Accounting	*400,000*			
	Sub-total	4,078,789			
2+3+4		(5,518,618	14 l.		46
5. General expenses	Interests of cash advances and loans, costs of remittances in France, droits de presence	*(930,000)*	*2 l. 5 s.*	*540*	*8*
Total cost of the sack(s) of flour		*(11,617,719)*	*29 l. 5 s.*	*7,020*	*10 0*
Price of the ration			39 d.		

23 One *livre tournois* was made of 20 *sous*, and one *sou* of 12 deniers. The *livre tournois* contained a total of 240 *deniers*.

Finally, the MGVFA provided work to a large number of people whose task was to assist with the transport of sacks and *pain de munition*. In effect, if transport made up only 5 per cent of the gross price of the sack of flour, it is because this expense merely covered conveying the sacks of wheat from their place of purchase in France to the closest army storehouses within France or on the frontiers. The cost of moving wheat from home magazines to the storehouses in foreign territory —there were 85 such storehouses in 1759 stretching from the Scheldt to the Lower Rhine and from there to the theatre of operations— was not included in the price of the sack of flour. For the whole year of 1759, 7 million was allocated for conveying wheat abroad, including on-going costs for the building and repair of local storehouses and staff payments. The tariff was 4 lt. for each sack of wheat to be transported from a foreign country and 6 lt. for replenishing storehouses for winter quarters, the stock of which was naturally depleted during the campaign and the period spent in winter quarters.[25] The breakdown of the price of the sack of flour did not include expenditure for bringing the bread from the bakeries to the soldiers either. This task was also contracted to the *munitionnaire des vivres* who purchased the horses with their equipment and who were paid a daily allowance per horse (*solde*) by the government. At 3 lt. 3 s. per day, the cost of the 9,600 horses (reduced to 1,600 in the winter quarters) to be employed by the MGVFA added 4.8 million to the 1759 contract (26,6 million). Overall, all items of expense for transport amounted to some 8 million, or about 40 per cent of the total cost (18,5 million) for supplying field armies with bread in 1759, against c. 10 million for the production of bread.[26]

In contrast to the campaign in Flanders during the War of the Austrian Succession, victualling the troops during the Seven years' War was very hard on horses and equipment

24 Figures in brackets calculate the cost in lt. of each of the five main items of expenses on the basis of a supply of 397,187 sacks. The supply of the garrisons was cheaper. The ration on the frontier of Flanders and Germany was priced at 30 deniers and at 35 deniers for the Côtes de l'Océan. These troops respectively consumed 28.5 million and 23.9 millions of rations in 1759, making, at 181.5 rations per sack, some 289,000 sacks for a total cost of 7 million.

25 The *munitionnaires* explained that in the Seven Years' War transport cost rose because the German countries were too poor and he had to draw a larger portion of wheat directly from France than had been the case in the previous conflict.

26 These calculations are based on a valuation made in March 1759. They do not include the provision of 23,174 quintals of rice for 695,220 lt. and the related transport costs at 2 lt. per quintal (total 741,568 lt.).

of wagons and carts. In Germany the *munitionnaires* could not rely on the dense network of canals and roads typical of the Austrian Low Countries. They had to put up with poor communications made even more difficult because of the harsher climatic conditions. The MGVFA profit on transport was minimal as they needed to replace, at their own costs, all the horses which were unfit or died in service, as well as the carts which broke down on rugged terrain. On two occasions during the war, the enemy's attacks forced the French troops to retreat and the *munitionnaires* to abandon all goods and equipment, which then had to be replaced at great costs. A large workforce was needed to look after the horses and drive carriages. On the basis of contemporary treatises concerning the organisation of the *service des vivres*, 9,600 horses would make 50 *équipages* of 24 ammunition wagon, each equipage handled by 33 employees making a total of 1,650 individuals.[27]

In conclusion, one can assume that during the Seven Years' War the MGVFA employed 3-4,000 staff, had an average annual turnover of 25 million and probably made a fixed annual profit of c. 2,5 million. This was in line with the contemporary assumption that the financial reward for providing services to the king should be 10 per cent. The maximum additional and variable profit, however, the *munitionnaire* could make on the price of wheat as well as on leasing transport, might have increased total profit to 3 million in good years. Figures published in 1769 suggested even higher profits: Jean Baptiste Daragon reckoned that the *munitionaires des vivres* made *'up to 3 and 4 million during the last war'* but it is not clear whether these sums were for contractors in both theatres of war.[28] By the end of the war, each of the 14 partners of the MGVFA would have made a total profit of 1 to 1.5 million lt. The actual profit depended of course on their initial investment, or the number of *sols* they held in the capital of the company. The bankruptcy of Marquet de Peyre, who was unable to pay bills of 1,2 million for the construction of his Parisian hotel, confirms to some extent

27 The *munitionnaire* had to feed them and the contract took account of staff employed in transport in the number of military rations to be supplied. François Sicard, *Histoire des Institutions militaires des Français*, Paris, 1831, 4 vols., vol. 1: 478-479. For more details see François Naudot, *Le Munitionnaire des armées de France, qui enseigne à fournir les vivres aux troupes avec toute l'oeconomie possible [...] l'employ particulier du munitionnaire, celui du général des vivres, l'ordre et la régie des équipages, les instructions pour tous les commis...* (Paris, 1701) and Louis Dupré d'Aulnay, *Traité général des subsistances militaires* (Paris, 1744, 2 vols).

28 Abbé Fleury, *Droit public de France, Ouvrage posthume composé pour l'éducation des Princes; Et publié avec des Notes, par J.B. Daragon*, Paris, 1769, 2 vols., vol. 2: 638.

the estimate of a fortune in the region of 1,2 million. Such level of wealth was typical of the *receveurs généraux des finances* at the end of their career, but inferior to that of *fermiers généraux*.

In spite of this substantial financial reward (at the time the minimum annual salary was around 300 lt. per annum), the MGVFA remained very nervous about the return on their work and investment throughout *'a war so constantly unfortunate, and in countries so exhausted'*.[29] At the start of the war, the partners decided not to distribute any profit until peace was declared, probably to maintain a high level of liquidity and seize the best opportunity for buying cheap wheat. This decision was also helpful as it could be used to justify resistance to outside pressures to take on new partners or sleeping partners as acceptance of newcomers would require a full inventory of all the company's assets and generate additional costs as well as potentially divisive legal procedures.

If the *munitionnaires* expected a short war, as seemed to have been the government's expectation, and to benefit from the experience gained in the War of the Austrian Succession, they were bitterly disappointed. In contrast with the previous conflict, when the government had paid regularly its contractors, the *munitionnaires* expended a considerable amount of time and effort claiming payments for their services. In 1759, the MGVFA was owned 1,3 million and 4,6 million for their supplies in 1757 and 1758. The situation was made worse by the suspension of payments (October 1759) and from that moment the *caisse des vivres* in Paris was struggling on a daily basis to replenish its coffers with cash to allow the next day's payments. In July 1763 the MGVFA computed its cash advances at 13 million compared to a mere 3 million at the end of the War of the Austrian Succession. The financial crisis of the monarchy was a real problem for contractors because they had to pay a multitude of expenses, in particular staff salaries and their subcontractors. But cash was precisely what was most lacking. For the government not only rescheduled and renegotiated the terms of payment of its short-term assets. When it paid, it was with a large proportion of paper, in the form of bonds. *Table 4* reveals striking differences between the two wars. In the Seven Years' War, 40 per cent of the payments made by the State to the MGFVA were in paper against only 15 per cent in the years 1744-1748. Since the state applied this policy to all its contractors, the latter used to sell the bonds on the private market when they needed cash, sales which naturally accentuated a movement

29 BNF, Fr. 8018, *Copie de la délibération de la Compagnie concernant le traitement de ses députés aux armées, à cause des dépenses extraordinaires, 3 août 1763*, f. 69.

of spiralling depreciation of the State's financial assets as well as those floated by the *munitionnaires* to refinance themselves. Of course the loss incurred in cashing in bonds varied according to the specifics of each asset but it was usually between 30 and 60 per cent. In the case of the MGVFA, the average loss on negotiating bonds was 10 per cent in the late 1740s and 28 per cent in the Seven Years' War (see *Table 4*).[30] Therefore, the contractors' cashflow was dangerously low during the Seven Years' War while the cost of borrowing money or cashing bonds delivered to them by the State was very expensive, as expensive as in the worse time of Louis XIV's wars.

The retirement of Paris Montmartel who, for many years, had acted as a lender of last resort for the financiers and ensured the liquidity of a fiscal system which was now in crisis was also a setback for contractors and financiers. Although Laborde took over Montmartel's activities, the MGFVA started to act as a banker for government by raising money on the financial market for much larger amounts than they had used to. At first, the *munitionnaires* probably thought that they were just bridging a temporary deficit in the *Trésor royal*. Bourgade was alarmed when he realised that by agreeing to financially support the State he might be shooting himself in the foot by encouraging the controller general to tighten the tap on the flow of money even more. Military and naval defeats, the stifling of French trade by the British navy and the domestic political crisis only made matters worse. In October 1760, the MGVFA decided to take a step forward: the partners chose to increase their cash advances to avoid the negotiation of 6 million bonds at 3 per cent assigned to them by government which, on the market, would incur a 60 per cent loss. In January 1761, 2 million had been raised at a cheaper rate. The memorandum sent to Choiseul was not incorrect when it observed that contractors had turned into financiers. The relative inefficiency of the French financial system and the impact of military defeat on the interest rate might have put extraordinary burdens on Louis XV's contractors. Yet, as Gordon Bannerman has recently shown, the phenomenon was not exclusively French but also characteristic of the British experience in the Seven Years' War. The very cost of the conflict and political limits on the annual increase of the budget meant that the annual resources were insufficient to cover the actual needs of the armies, hence the usefulness for Cabinet of relying on the credit of contractors like Lawrence Dundas.[31]

30 BNF, Fr.8018, f. 116 passim, *Examen et Comparaison de la Dépense en fonds extraordinaires faits pour le service des Vivres de la Guerre de 1757 à 1762, avec ceux faits pour la guerre de 1744 à 1748.*

31 G. Bannerman (2008).

Table 4. Payments in cash and paper made by the Crown to the MGVFA during Louis XV's wars, and loss for the negotiation of bonds

	1744-1748		*1757-1762*
Munitionnaire général des vivres d'Italie		*Munitionnaire général des vivres des provinces méridionales* (*South)*	
Government payments in cash	34,160,885		2,576,000
Government payments in paper	4,863,800		2,871,225
Total	*39,024,685*		*5,447,225*
Cost for the negotiation of paper	868,488		793,742
Loss for cashing in paper	17.8 %		27.6 %
Munitionnaire général des vivres			
de Flandres et d'Allemagne			
Cash	58,632,438		62,918,478
Paper	10,238,400		44,877,125
Total	*68,870,838*		*107,795,603*
Loss on paper	1,221,334		13,185,638
Net cash total	67,649,504		94,609,965
Loss for cashing in paper	12 %		29.4 %
Total	**107,895,523**		**113,242,828**
Proportion of paper in Crown's payments	15.1 (14 %)		47.7 (41 %)
		Régie de Minorque	1,990,247
		Régie d'Espagne	1,532,378

The return of peace did not bring immediate relief to the *munitionnaires* who were very anxious about the measures the Crown would take to deal with an unprecedented level of debt and a public opinion which was more forceful than ever about the need to introduce major reforms and make the financiers pay. The anxiety was well-founded: in September 1763, Bourgade was so aware of the pressures on ministers that he gathered notes and observations, probably for controller general Bertin who supported pro-government pamphlets, in case it was necessary to counter the impressions that circulating publications give of financiers.[32] In December 1763, the king's

32 Fr. 8017, ff. 74-80vo.

decision to appoint a magistrate of the Paris *Parlement*, L'Averdy, for the job of finance minister was a shrewd move to defuse public anger against the financiers who, in the end, were only subjected to a token tax. As L'Averdy put it bluntly, it was very difficult for government to do without the financiers who owed large sums of money and still lent their credit to service the Crown's deficit.

Like all contractors, Bourgade was awaiting a speedy decision regarding payment of the MGVFA's cash advances. In the Spring of 1763, he sent two memoranda to Bertin in order to take advantage of a recent decision about debts which offered to indemnify the original holders of government's bonds issued in payment for services, in other words who had held on to them instead of selling hem and, perhaps, speculating on their depreciation. Bourgade asked for an indemnity of 2,5 million for the 6 million bonds at 3 per cent the MGVFA had held since 1760. It is not known if Bertin agreed to Bourgade's demands which were probably meant to cover the loss in case the bonds were finally cashed on the market. It may be that Bourgade's aim was to put pressure on Bertin and obtain other favours, in particular to speed the settling of the MGVFA's accounts with the government. In any case, Bourgade was unhappy with a situation whereby the new *caisse d'amortissement* was to amortise debt owned by creditors over a period lasting up to 25 years (until 1789) whereas the capital of *munitionnaire's* outstanding debt paid in bonds during the previous war had been fully repaid before 1759. In the absence of the accounts of the MGVFA it is impossible to estimate the actual profit that the partners distributed between them for their services during the Seven Year's War. The cost of the war, the size of the debt in 1763 and the discrediting of royal assets explain that the financial reward for supplying the king's armies in the Seven Years' War became a longer term business than expected for those contractors who had been lending their credit and were paid in paper. From 1763, the story of these bond holders runs in parallel with the policies of Louis XV and Louis XVI's finance ministers for sinking the debt and the evolution of the market price of these bonds. It may well be, though, that ministers prioritised repayment of contractors' debt or negotiated with them a variety of agreements to compensate for their losses. For instance, all the equipment and the food accumulated in Germany were used to supply garrisons in France in 1764.

Conclusion. *Peace and the fate of the* 'Munitionnaire général des vivres' *de Flandres et d'Allemagne*

For the *munitionnaires des vivres*, supplying the troops in wartime was a difficult but exciting and busy period. Peacetime, with the reduction of the troops, was a much quieter one. It was above all the time for settling the accounts with the government and distributing profits to the partners. The accounts for 1755 and 1756, which came to only 3 million per annum, had already been finalised in 1757. Those of the busiest war years required more time. They were gradually settled during the years 1764 to 1766. By this point, the system of *munitionnaires généraux* had been suppressed and replaced by a *régie* or direct administration by the state. For many observers and historians afterwards, the transition undertaken in the system of military supply under Choiseul's reforming ministry was symbolic of a new era, the ultimate victory of public opinion and patriotic thinking over the *munitionnaires* and financiers, and the costly and inefficient services they had offered during the Seven Years' War. This apparent victory, however, was short-lived as Choiseul's successor, the comte de Monteynard decided to rely once again on private enterprise to supply garrisoned troops (1771). This decision was soon followed by the publication of *Essai général de tactique* (1772) by the comte de Guibert, a favourite of the *philosophes*' salons, who critically examined the relationship between war supplies and military campaigns, and the French system of supplying armies. With Louis XVI's accession in 1774 and the appointment of the reforming comte de Saint-Germain, who favoured the *régie* system, debates were once again re-opened about the virtues of direct administration[33].

For once, contractors decided to enter the fray in the person of Jean-Nicolas Dampierre de La Salle (1723-93), who, in 1753, married the daughter of Jean-Denis Nesme, intendant of Mme. de Pompadour, and purchased 1 sol of interest in the *munitionnaire des vivres de Flandres et d'Allemagne.* Although Dampierre's *Lettre d'un ancien munitionnaire des troupes du roi* (1777) gave the impression that it replied to a pamphlet called *Le Publicole français,* his aim was to publically discuss Guibert's ideas about the military supply system[34]. Dampierre's views match almost point by point

33 See the interesting study by L. Kennett (1967), which is very much inspired by reformers', views and pamphlets. See also A. Corviser, *op. cit.,* and L. Mention (1884).

34 *Le publicole français, ou mémoire sur les moyens d'augmenter la richesse du prince par l'aisance des peuples* (Paris, 1776).

those of Bourgade as they appear in the collection of documents he gathered about the activities of his company during the Seven Years' War. Yet the broader approach of Dampierre's *Lettre*, which provides details about the evolution of military supply under Louis XV, reveals that if Choiseul's reforms responded to the pressures of public opinion and the need to cut expenses, the change to *régie* also suited the *munitionnaires*' agenda. Apart from the fact that military supply in peacetime was a less interesting and rewarding activity, Dampierre's text indicates that the partners had been unwilling to carry on with business and the company was dissolved. Some of the partners had reached the age of retirement and others who had been attached to the armies needed to look after their ill health. More importantly, at the beginning of 1764, the government had finally decided to suppress all laws which traditionally prohibited free trade of wheat and export abroad. The *munitionnaires*, as one of the principal merchants of wheat in a system based on monopolistic values, disagreed with the spirit of the new laws. They were not prepared to contract with the state because of the risks of buying grain on a market that would be less predictable and, in any case, was likely to see prices rising, which was precisely one the major aims of the new corn laws. By the end of the 1760s, the context of a looming financial crisis, a succession of very bad harvests which saw the price of wheat rocket and population riot ton tax bread would lead to Terray's partial bankruptcy (1770) and chancellor Maupeou's coup against *Parlements* to muzzle public criticism of government. These measures would be accompanied by the repeal of the liberal corn laws and the abolition of *régie*: short of cash but anxious to feed the army in a context of rising prices, the government was happy to rely on private enterprise for the supply of *pain de munition* to the troops and, of course, cash advances.

In the end, the relationship between Louis XV and his military contractors was far from a happy story. Although partners in the MGVFA saw their services rewarded and several among them became financiers in the highest echelons, the transition from military supply to tax collection suggest that they were keen to escape from a profession which had proved risky and brought dishonour. This was perhaps the inevitable consequence of the burdens of warfare and profits contractors made in support of the state military commitment which, in earlier times, had seen financiers sent before *chambres de justice*. In the Seven Years War the self confidence of *munitionnaires* considered as an Ancien Regime type seems to have greatly suffered. Yet, the employees of the MGVFA who were transferred to Choiseul's *régie* simply because they liked their job, which was quite important, or could not see themselves in another activity, could not

accept the image of bloodsuckers. Dampierre de La Salle, one of them, was so upset by the insults published in the *Publicole français* (1776) against *munitionnaires* that he published a defence and demanded:

> *is it really so sure that companies which have been dismissed, re-engaged, applauded, criticized, relentlessly denounced, painted in the most odious colours, will again devote themselves to such humiliation? Their informers are beneath contempt ... but souls of any sensitivity fear what hurts at whenever quarter comes from ... That constitutes, to think it so, a sign of weakness in me; but I own to this weakness.*[35]

For Dampierre, obviously, by the end of the Seven Years' War the military supply system was in disarray. In many respects, this crisis reflected the bigger problems that the French monarchy was facing, specifically the need to modernise its fiscal and political structures.

35 *Lettre d'un Ancien Munitionnaire des Vivres des troupes du Roi* (La Haye, 1777), p. 51.

Modern Works Cited

BANNERMAN, G. (2008). *Merchants and the military in eighteenth-century Britain: British Army contracts and domestic supply, 1739-1763*, London.

BONNEY, R. (2004). "Towards the comparative fiscal history of Britain and France during the 'long' eighteenth century", in L. PRADOS DE LA ESCOSURA, *Exceptionnalism and industrialisation, Britain and its European Rivals, 1688-1815* (CUP, 2004), pp. 191-215.

CLAEYS, Th. (2009). *Dictionnaire biographique des financiers au XVIIIe siècle*, 2 vols., Paris.

CORVISIER, A. (1992-94). *Histoire Militaire de la France*, 4 vols., Paris.

CÔTÉ, A. (1998). *Joseph-Michel Cadet: 1719-1781: négociant et munitionnaire du roi en Nouvelle-France,* Paris.

DUPIEUX, P. (1934). « Les attributions de la juridiction consulaire de Paris (1563-1792). L'arbitrage entre associés, patrons, commerçants et ouvriers au XVIIIe siècle », in *Bibliothèque de l'Ecole des Chartes*, 95, pp. 116-148.

FAVRE-LEJEUNE, Ch. (1986). *Les secrétaires du roi de la Grande-Chancellerie de France: dcitionnaire biographique et généalogique, 1672-1789*, Paris.

FÉLIX, J. (1999). *Finances et politique au siècle des Lumières. Le ministère L'Averdy, 1763-1768*, Paris.

KENNETT, L. (1967). *The French Armies in the Seven Years' War. A study in military organization and administration,* Durham.

MENTION, L. (1884), *Le comte de Saint-Germain et ses réformes (1775-1777),* Paris.

O'BRIEN, P.K. and P. MATHIAS (1976). "Taxation in Britain and France, 1715-1810. A Comparison of the Social and Economic Incidence of Taxes Collected for the Central Governments", in *The Journal of European Economic History*, vol. 5, no 3, pp, 601-650.

RILEY, J.C. (1987). *The Seven Years' War and the Old Regime in France. The economic and financial toll,* Princeton

WADDINGTON, R. (1899-1914). *La guerre de Sept Ans,* 5 vols, Paris.

WORMELEY, K.P. (1902). *Memoirs and Letters or Cardinal de Bernis*, 2 vols. , Boston.

Who spends the Spanish Inquisition's Money?[1] 6

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This simple question is not always easy to answer. The reason lies in the very birth of the Spanish Inquisition. The new court is born at the request of the Catholic Monarchs and the Pope's decision. And the Pope decides to grant a role to the monarchs in the new institution. This duality determines the institutional development of the Spanish Inquisition.

If we refer to its organizational structure, the Inquisition clearly shows this duality. The General Inquisitor is the head of the Spanish Inquisition. The specific person who holds this position is proposed by the King and appointed by the Pope. Legally, the General Inquisitor is a Pope's delegate. The intervention of the monarch in his nomination does not detract from its legal status. The General Inquisitor is appointed by the Pope and exercises ecclesiastical jurisdiction. To assist him in fulfilling his functions, the King created the Council of the Supreme and General Inquisition (generally known as *La Suprema*). Counselors are appointed by the King from a proposal by the General Inquisitor. He nominates three candidates. The King chooses one of them. The balance of powers between the General Inquisitor and the *Suprema* is rarely peaceful. It all depends on the personality of the General Inquisitor, the disposition of the King and the belligerence of the *Suprema*.

It also should be noted that economic issues of the Inquisition in Spain are a matter for monarchs and not part of the jurisdiction delegated by the Pope to the General

1 This is a transcript of the conference presented on 17 Nov. 2011 at the International Congress *The contractor State and its Implications, 1659-1815,* organized by the *Contractor State Group*. For further details, see E. Galván Rodríguez (2010).

Inquisitor. In that sense, the General Inquisitor acts on the orders of the King. For this reason, broadly speaking, one could argue that, at first, the King is the one who spends the money from the Spanish Inquisition. Then it will be the General Inquisitor. Finally, when the style of the Spanish Inquisition has been consolidated, we will see how the procedure in '*matters of finance*' requires that the General Inquisitor decides *'with the consent of'* the *Suprema*. The subject of our presentation will be to explain how and why this process occurs. We will take the chance to give some clues about the main expenses of the Spanish Inquisition.

As you can see, we can distinguish seven periods. Each one could be labeled under the next headlines:

1478-1514	The King orders to pay
1514-1520	The General Inquisitor orders to pay
1520-1594	The General Inquisitor orders to pay with the consent of the *Suprema*
1594-1618	The *Suprema* increases its power
1618-1633	The *Suprema* increases its controls over the General Inquisitor
1633-1703	The General Inquisitor recedes
1703-1808	The General Inquisitor is defeated

In the first one (1478-1514), the King spends the money from the Spanish Inquisition. This creates several problems. The King does not reserve money for salaries. The result is that the Inquisition delayed payment of wages. In response, the General Inquisitor and the *Suprema* beg the King to pay the salaries before other expenses. To avoid losing their salaries, the district courts are reluctant to enforce orders of payment signed only by the King. The monarch reiterates his orders and asks the Pope for help. At the end of this period, we find orders signed by the King, the General Inquisitor, the *Suprema*, or any combination thereof. In short, we find disorder.

In the second period (1514-20), the General Inquisitor achieves that any order without his signature is not to be paid. Then, the King Fernando dies in 1516. It is the moment to act. The General Inquisitor orders not to pay any order issued by the King. Moreover, he separates confiscations from fines and penalties. The money from confiscations depends on the King. The money from fines and penalties depends on the General Inquisitor.

In the third period (1520-94), the King orders not to pay without the signatures of the *Suprema*. On the other hand, the *Suprema* can order to pay without the signature

of the General Inquisitor. Also, the King orders to pay first salaries, then other expenses. Financially, the *"Inquisition is a whole"* and there is financial solidarity between courts. One court can pay the expenses of another court, ordered by the *Suprema*.

In the fourth period (1594-1618), the *Suprema* increases its power. The General Inquisitor cannot appoint supernumerary officers or officers without salaries. On the other hand, the King begins to ask for money from the Inquisition as a loan. Paying salaries is still a problem.

In the fifth period (1618-1633), the *Suprema* increases its controls over the General Inquisitor. He should communicate orders of payment in *Suprema* meetings. These orders must be signed by counselors and also registered. The number of inquisitors and officers is limited to a certain number, as a partial solution to the salaries problem.

In the sixth period (1633-1703), the *Suprema* establishes a *Board of Finance* each week. No order will be paid without the prior control of this *Board of Finance*. Also, no order will be paid without the signature of the Accountant General. In this period, the King needs more money for war. This involves seizing salaries, ordering loans and payments of soldiers, or seizing the money from the inquisitorial courts. The result is a serious deficit in the finances of the Inquisition. In 1652, the annual deficit of the *Suprema* amounts 14.000 *ducados*[2]. In 1677, it amounts 400.000 *reales*[3].

In the last period (1703-1808), the General Inquisitor is defeated. The King cancels all appointments of honorary officers made by the General Inquisitor. Also, the King prohibits him to retire any officer without consulting the monarch, or forbids to pay extra salaries over thirty *ducados* without ruling by the monarch. Again, the reason is the war. But now, the Inquisition is falling into ruin. In 1705, the annual deficit of the *Suprema* amounts 5190449 *reales*[4]. Moreover, the King orders '*voluntary donations*' totalling 10 per cent of the salaries. The deficit increases.

Fortunately, the new century brings good news. In 1805 incomes exceeds expenses. But soon, the Spanish Inquisition will have serious problems. First Napoleon, and later the Cortes of Cádiz abolished the Spanish Inquisition for the first time in more than three hundred years of history.

2 Biblioteca Nacional de España, ms. 7669, 79v-120r.

3 Archivo Histórico Nacional (AHN), *Inquisición*, lib. 24, 109r-110v.

4 Archivo General de Simancas (AGS), *Gracia y Justicia*, leg. 622.

Modern Works Cited

Galván Rodríguez, E. (2010). *El Inquisidor General,* Madrid: Editorial Dykinson.

Buying cannons outside: when, why, how many? The supplying of foreign iron cannons for the Spanish Navy in the eighteenth century 7

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Ever since cannons first appeared on the scene they gradually won out over other battlefield weapons. In the eighteenth century the increasing number of wars and the growing size of armies and fleets all boosted the demand for artillery both on land and sea and also in the many garrisons overseas. The number and scale of colonial conflicts increased particularly during the eighteenth century, calling for a significant improvement in the artillery of the navy and the colonial garrisons; these factors also definitively established a worldwide demand for cannons. Cannons, however, were difficult and expensive to manufacture, so meeting this demand was no easy task.

This preamble poses the following questions: did Spain have as many cannons as it needed for defending its vast empire in the eighteenth century? In any case, whether they were many or few, how did it obtain them? To answer these questions we need to study the procurement process. The procurement process was two-pronged because they could either be made or purchased.[1] The manufacturing process in turn could be direct, by administration (a factory owned and managed by the central Administration) or by supply contract (*asiento*); in the latter case, the state is purchasing the production to the contractor on a *de facto* monopoly basis, but the purchase could also be on the international market. To chose one of the possibilities involved a decision-making

1 A classic example of this decision-making process and its consequences is sixteenth century England, which drew on its raw material for making iron cannons as related by Cipolla (1965: 36-37). For Spain the problem was put forward by Thompson (1976). A general approach for the eighteenth century can be found in Torres Sánchez (2000).

process affecting in different political, economic, technological or strategic spheres. In fact, all the evidences direct us to think that the final decision to buy in the open market involved a great amount of pragmatism, but in particular, when and why Spain turned to the external cannon market in the eighteenth century?

1. The acquisition of cannons in Spain: a provisional timeframe

In comparative terms eighteenth century Spain stood at a certain disadvantage in terms of cannon manufacture, especially of cast-iron cannons. The first artillery expansion in Europe began in about 1550, in a moment of soaring military activity.[2] At that time the battlefields were outside mainland Spain and its colonies. The battlefields (northern Italy, Germany, Low Countries) coincided with zones suited to the development of the iron industry and arms manufacture; furthermore these zones were also under the sovereignty of the king of Spain or German emperor. It would therefore seem logical for the Spanish monarchs to encourage arms manufacture in those places.[3] The theatres of war and the economic situation therefore encourage and justify supplying armies fighting abroad from places close to the battlefield. This made it necessary for the state to turn to foreign supply contractors which were mainly in the Netherlands, together with Germany and Italy, the main centres of the armaments industry in Europe.

The upshot was that Spanish armies depended on the European iron cannon industry for their supply. Although this industry was largely located in areas under Spanish sovereignty, they where in not Spain. The crunch came with the Treaty of Utrecht, in 1713: the loss of the so-called Spanish Low Countries meant that the hitherto cannon-supplying territories were no longer under its control.

It is not the case that Spain had done nothing before 1713 in terms of cannon manufacture, but it is true that this area had not been sufficiently nurtured to suit the needs of a complex policy. Spain's only iron cannon factory was La Cavada-Liérganes, created in 1622,[4] and it remained the only one for quite some time after its creation. Other factories were founded in the seventeenth century but they came to naught.[5]

2 In England, which was by now the leader of this process, the per capita consumption of kilograms rose from 2 to 7 between 1500 and 1640 (Alcalá-Zamora, 1974: 131). See also, in general, Cipolla (1965: 36 ff.). For the military revolution in general see Parker (1989).

3 Cipolla (1965: 33-34).

4 Alcalá-Zamora (2004).

5 Alcalá-Zamora (1999).

At the beginning of the eighteenth century the Cavada-Liérganes factory was the only one. But demand swelled throughout the eighteenth century as the navy was built up.[6] Although quite a few bronze cannons were still being fitted in ships, for particular needs, until halfway through the century,[7] the navy was increasingly demanding iron cannons. The army, for its part, was still using the large iron cannons for its garrisons.[8] The Cavada-Liérganes factory worked well and it supplied the navy with many cannons, but was not the exclusive supplier, since the navy had also to buy cannons elsewhere. This factory is a clear example of the procurement process made by supply contract on a monopoly basis. Through times, several families succeeded themselves as owners of the factory and contractors of the king. The situation changed in 1763 when the factory was bought by the State and put under direct administration.

The Spanish state's demand for arms in the eighteenth century and its methods for obtaining them can be basically broken down into three stages. The acquisition of iron cannons more or less complies in with this trend. The first of these phases, up to about 1720, is dominated by the strong demand created by the War of the Spanish Succession, which obliged Philip V to buy many arms from France.[9] In the new post-Utrecht situation the problem changed completely. In the immediate aftermath of that war there was a lingering tendency to buy abroad, although the suppliers changed. In the second phase, running from about 1720 to 1765, the Spanish authorities tried to boost national production to meet all its needs, with a few exceptions, so no purchases were made abroad in this period. The third phase set in as from 1765 or even earlier, when the panorama changed once more for the reasons we will see later. Although national manufacture was fostered at this time, it was also necessary to turn to the overseas market on several occasions.

2. Buying abroad: up to 1765

The pre-1720 period is dominated by the War of Succession and its immediate consequences; this pitched the state into a war effort for which it was largely unprepared.

6 Alcalá-Zamora (2004: 63, 109).

7 Torrejón (1997: 307).

8 Indeed, in 1737, for example, Spanish garrisons had more iron cannons than bronze. Gil Ossorio (1974: 94).

9 Kamen (1974: 75-80) and Castro (2004: 185-94; 281-83).

The weakness of the Spanish armies and its armaments in the late seventeenth century has still to be borne out with precise data; it seems clear *'that the war fleet was by no means insignificant'*. Nonetheless, there was an evident lack of vitality,[10] together with a large reduction in numbers; in short a weak and poorly equipped army.[11] There are certainly many signs of significant shortfalls in armaments and diverse material in the immediate aftermath of the war of succession.[12]

Besides the small size of the army, the factor that stands out in the time running up to the war of succession is the organisational change. The switch from *tercios* (crack infantry troops of the King of Spain) to regiments, decreed in 1703, also involved a change in armaments, from the harquebus and pike to muskets and bayonets. Although the Spanish small arms factories tried to adapt to the change, they took some time to do so. The new armaments therefore had to be purchased abroad, especially from France.[13] The heavy purchases of hand-held weapons and other military material from France is well documented but there is no clear information on the artillery.

Were cannons also bought from France or not? Kamen claims that Philip V *'completely depended on France for its various types of artillery',* but offers no more backup information.[14] Did this dependency call for the purchase of cannons or did those already possessed suffice together with those brought into Spain by the French army? He also points out that Spain was capable of supplying only a limited number of mortars and this dearth meant that *'a foundry had to be set up in Pamplona'*,[15] concluding later on that Spain had the capacity to produce gunpowder but not so much to produce cannons.[16] Nonetheless he does not mention any purchases of cannons. Kamen does point out, however, that things changed during the war because *'most of the artillery bought by the government from 1713 to 1716 came from the Cantabrian factories'*,[17] i.e., La Cavada-Liérganes, presumably, if *"artillery"* refers here to cannons. In any case

10 Cited in particular by Alcalá-Zamora for the navy (2004: 107).

11 Ribot García (2006: 222).

12 Kamen (1974: 74-5) and Calvo Poyato (1989: 55-6).

13 Calvo Poyato (1989).

14 Kamen (1974: 76).

15 *Ibid*. We do not know if the company referred to here is the one already mentioned in footnote 9. If it is the same, this intention referred to in Kamen's quote did not come to fruition, at least until 1717, as we have already seen.

16 Kamen (1974: 80).

17 *Ibid*.

Kamen does wind up by saying that the available cannons for the siege of Barcelona in 1714, came from Toulon.[18] The siege of Barcelona, however, important as it may be, was only a footnote at the end of the war. We can now add the information that artillery from La Cavada-Liérganes was also used for this siege and not only cannonballs as has sometimes been claimed. Indeed, in the *asiento* signed in 1715 with the La Cavada-Liérganes suppliers, in order to bring out the merits of these entrepreneurs as justification of the new *asiento*, express mention was made of the goods delivered over the previous year for the Barcelona siege, including not only cannonballs but also cannons.[19]

Other authors who have dealt with the supply of arms in this war give more detailed information, but always along similar lines: either speaking of arms in general, giving us no useful insights for our purposes here, or specifying only hand-held weapons such as muskets or pistols together with many other supplies[20]. Furthermore, I have found no specific mention of any possible purchase of French cannons during the war. Obviously this does not rule out the possibility completely, but it does make it unlikely.

One possible way of clearing up this conundrum is to focus on Spanish priorities. According to C. de Castro, Philip V settled for entrusting protection of the sea to the French squadrons, using the old cannons for the garrisons, opting only for the production of hand-held weapons.[21] Spain did in fact seem to have enough bronze cannons for the army, topping up any shortfalls with inputs from the French army.[22] As for the navy there was no option but to rely on the French ships, given the weakness of the Spanish squadrons. All this data, however, does not marry perfectly with the fact that some national cannons were in fact made, as we have already pointed out. We know that La Cavada-Liérganes turned out at least 800 iron cannons from 1700 to 1715 —it is highly unlikely that all of them would have been for French ships—. In any case the overriding concern for the Spanish king was hand-held weapons and weapons for the infantry that had to be mustered almost in an extemporised fashion during the War of Succession.

18 Kamen (1974: 79).

19 The documents do not indicate the exact amount. A.G.S., D.G.T., 7, leg. 1-40-2.

20 Calvo Poyato (1989); Castro (2004: 185-94); Dubet (2008: 153-54).

21 Castro (2004: 185).

22 Vega Viguera (1992: 100-01).

Immediately after the War of Succession the situation changed. The most telling new factor was the rearmament process that Alberoni needed to support the revisionism policy carried out as from 1717. The production and organisational effort that astonished onlookers at home and abroad, though the only detailed accounts are those recorded in the printed media of the time.[23] Be that as it may this new Spanish policy must have increased artillery needs. We know, at least, that the *asiento* signed by the contractor of La Cavada-Liérganes for the period 1715-26 had a higher price than the previous one,[24] suggesting that output was perking up.

But sights were also set abroad at that time. In fact ships being built in Biscay might well have been supplied with their weapons from England and France.[25] At least there was an attempt to do so. We know of at least two *asientos* signed by the king for purchases of English and French cannons in 1718. The first of them, dating from 6th June 1718, was signed by the Navarre businessman Norberto de Arizcun,[26] who also ran a foundry in Saint-Étienne-de-Baïgorry, France. Under this contract the contractor undertook to deliver, among other supplies, eighty 8-pounders from his French factory.[27] Under the second contract, on 11th July of the same year, the Madrid merchant Pablo Antonio Gozani undertook to ship 280 guns of various calibres from England, delivering them to the port of Pasajes in Spain.[28] Gozani must have specialised in the arms trade, because in the same year of 1718 he procured for the Spanish authorities a large quantity of projectiles and other munitions in Holland.[29] These *asientos* reflect the pressing need to acquire more cannons for the rearmament process underway at that time, directly oriented to provide military equipment for the expeditions to Italy.[30]

Nonetheless it would seem that the two abovementioned cannon *asientos* never actually came to fruition, probably because the war unleashed by Alberoni complicated matters. There is good evidence that Arizcun was unable to perform the contract precisely because of the war, which prompted a French invasion of Spain right in the

23 Alonso Aguilera (1977: 61 ff.).

24 Alcalá-Zamora (2004: 106).

25 Merino (1986: 97).

26 On Arizcun see Aquerreta (2000).

27 A.G.S., D.G.T., 7, leg. 1-40-4.

28 Ibid, leg. 1-40-7.

29 A.G.S., S.M., 660. *"Noticias sobre balería"*, 1728.

30 González Enciso (forthcoming).

zone of his factory, near Spanish Navarre.[31] We assume that something similar happened in the case of Gozani who probably was unable to buy cannons in Britain, which suddenly became an enemy country.[32] In fact, once more in 1718, the decision was taken to buy 50 Swedish cannons from a French merchant.[33] Everything suggests that these cannons were bought partly to offset the other two scuppered contracts.

As we know the revisionist conflict ended in defeat and Spain had to bow to the Utrecht terms. This ushered in a phase of peace but at the same time an expansion of Spain's artillery construction. In the specific case of the La Cavada-Liérganes factory this expansion can be documented to a few years earlier, in 1716, in all likelihood in preparation for the revisionist conflict, and lasting until 1759.[34] This period falls into the second phase 1720-1765 of our timeframe. Presumably during those years there was no need to buy cannons abroad since production was rising; besides that, there had not been looses of cannons since there were no important naval encounters until 1739. Nonetheless, the needs increased again as soon as naval conflicts with Britain broke out anew; given the urgency, sights were once more set abroad, though only on an *ad hoc* basis.

In 1728 there was an attempt to buy 400 French cannons from one Pedro Dufay.[35] The contract ran into several snags. The French demanded cash payment of at least half the price against delivery of half the cannons. A compromise seemed to be reached in 1729,[36] when Dufay agreed to deliver, for the moment, 200 cannons.[37] The affair was still rambling on in 1731 and may be later, since there is a reference to Mateo Pablo Díaz, Secretary of the Treasury between 1736 and 1739,[38] who wanted to pay the merchants by participation in state revenue (in particular, in *rentas provinciales*). In fact we have no record of the definitive arrangement.

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31 González Enciso (2010: 199-200).

32 Alberoni was in the confident belief that his diplomatic efforts to keep Britain still will be successful, but they were not.

33 Gil Ossorio (1974: 101).

34 Alcalá-Zamora (2004: 109).

35 I do not know if this character, allowing for spelling vagaries, may be a relative of Noel Dufau, a French businessman who had imported arms from France in 1711. See Kamen (1974: 79). He is also cited, following Kamen, by C. de Castro (2004: 281).

36 A.G.S., S.M., 661. The affair dates from 1728-29 although it is filed among papers of 1739, perhaps as a precedent of the purchases made that year or because the affair was still lingering on at that time.

37 Pedro Dufay. 19 February 1731. A.G.S., S.G. Suplemento, 9.

38 He resigned in 10th March 1739 because of the bankruptcy of the State declared the same day.

For other years, there are records of what we believe to be two different proposals of English cannon sales in 1739 and 1741 by Juan Pablo Gozani.[39] In one of them, which we assume to be the first, from April 1739, the merchant said that he had 92 English-made cannons in Cádiz. The list of calibres is different from the other proposal, confirming that it is a separate item in its own right; the price is also different: 55 *reales* per cannon in this case. The proposal was approved in 24th September.[40] The other case refers to a proposal, also dating from 1739, but probably somewhat later in the year, in all likelihood July 1739. This contract involved 89 iron cannons of diverse calibres, which Juan Pablo Gozani undertook to deliver in Cádiz, in this case at 65 *reales* per cannon.[41] Alcalá-Zamora also quotes a purchase of 89 English cannons, without mentioning the merchant involved, but dating it to 1741;[42] nonetheless, given that the number of cannons matches, that the price is the same (65 *reales* per cannon) and that these purchases often dragged on in time, we assume that it is the same contract in both cases. We imagine that this contract postdates the 92-cannon one, not only because the price has gone up but also because it was apparently not settled until 1741, while the other one had already been approved by September 1739.

Furthermore, the second purchase seems to have been less urgent, since no fewer than 228 cannons were on the point of being sent from Tijero where they were being stored.[43] As the Marqués de Villarias pointed out in July 1739, Gozani's proposal would be taken up only if the navy fell short of cannons.[44] This foot-dragging posture expressed in July does not tally with an approval in September (the abovementioned approval of 92 cannons) but does fit in with the 1741 purchase of 89 cannons. In any case both purchases were made at a moment of need, judging from the words of Villarias again.

Thus, in the years of war with England and wars in Italy, artillery needs came to the fore, as we have just seen, but we have no record of these needs again being met

39 This merchant comes from the Gozani family we have already seen back in 1718. The 1739 proposal states that the Gozani family had had different munitions contracts from England and Holland *'from 1716 onwards'*. A.G.S., S.G. Suplemento, 8.

40 The proposal had been made on 16th April 1739. A.G.S., S.G. Suplemento, 8.

41 Gil Ossorio (1974: 101). The author cites Gazoni but this is obviously an errata.

42 Alcalá-Zamora (2004: 119).

43 Tijero was a storing place in a small tindal inlet of the river of the same name, near the port of Santander and not far from the factory of La Cavada-Liérganes. The cannons were placed there, so that they could be sent quickly, when demanded, by water.

44 A.G.S., S.G., 5809.

by purchases abroad after 1741, at least as far as cannons are concerned. We do know, in any case, that Spanish factories found it difficult to step up production, due to a shortage of funds rather than any technical shortfalls in the factories themselves. As the *Secretaría de Hacienda* (Finance Ministry) was told in summer 1739, *'the only way of committing Joaquín de Olivares* —the Cavada-Liérganes *asentista*— *to the punctual provision of artillery is to pay him punctually for what he has already provided, otherwise we have no moral grounds for obliging him'*.[45] Similar words were spoken at that time about other *asentistas*, especially the contractor for gunpowder, a product that was obviously urgently required. At any rate the Cavada-Liérganes factory stepped up its output to try to meet this demand. Alcalá-Zamora estimates that between 1716 and 1738 the company produced about 3.000 useful cannons, making 5.500 from 1740 to 1759, with a surplus that would surely, in the author's opinion, have been shipped off to America.[46] We believe that cannons would have been sent to America especially after 1750, a watershed year.[47]

Afterwards there seemed to be no artillery supply problems until the Seven Years' War,[48] especially in the aftermath thereof. The outcome of the conflict stoked up fears anew and preparations were made for a future conflict that seemed to be in the offing. The Cavada-Liérganes factory had fallen into something of a slump but even worse times were on their way. The advent to the throne of Charles III in 1759 unleashed a nationalisation process of key firms,[49] with the artillery firm one of the first in its sights. The gradual nationalisation of the Cavada-Liérganes factory lasted from the first state intervention in 1760 up to the definitive state takeover of the firm in 1769, but management had in fact been dependent on the *Secretaría de Guerra* (the Army) since 1763.[50] During these years, as was only to be expected, production slowed down. Although there was an upturn after 1765, the fact is that production fell away over the subsequent years. Small wonder in any case, given this fickle manufacturing situation and the rising demand both in Spain and America, that other sources of artillery supply were sought elsewhere.

45 A.G.S., S.G., 5809.

46 Alcalá-Zamora (2004: 110).

47 Delgado Ribas (2007: 174).

48 Torres Sánchez (2008).

49 González Enciso (2000: 42).

50 Alcalá-Zamora (2004: 114).

3. Buying abroad: since 1765

We know of some cases of cannon purchases abroad in the sixties. In 1766, 177 cannons brought by a Swedish trader were put through their paces in Cádiz. Only 26 were accepted.[51] One year later, in 1767, a contract was drawn up for the purchase of 600 *'old iron'* cannons from Sweden. The guns were tested by Maritz, who rejected all of them on the grounds of *'capital defects'*.[52] Also in 1767 the intendant of the Cádiz Navy Department, Juan Gerbaut, recommended, against his former opinions, that cannons should be bought outside Spain since he regarded it as very unlikely that Spanish factories could meet the demand. Specifically, he recommended accepting an offer of cannons *'from the Baltic'*, made by the Russian consul in Cádiz, manager of a commercial firm called *Rey Brandemburgo*. This offer involved 419 cannons;[53] we do not know whether or not the authorities heeded Gerbaut's advice.

Some time after 1767, the same Maritz who had rejected the Swedish cannons proposed that another 200 cannons be bought, also Swedish, which were likewise rejected as a lot after tests conducted in Cartagena and Cádiz.[54] We see, therefore, that by the late sixties there was a clear trend of seeking cannons further afield, although it seemed to be difficult to find them in good condition. In any case, international traders saw their chance and swung into action. Interesting developments soon occurred. The first offer from the Carron firm to the Spanish government dates from 1769 but it was turned down for the moment.

The situation changed radically as from 1772. It was not only a case of the falling production in La Cavada-Liérganes,[55] which probably only began to bite with time, but also a growing mistrust in the quality of the cannons produced in the factory in the late sixties. From 1768 to 1772, for example, the ratio of cannons approved fell by 30 per cent on the former period, precisely due to their poor quality.[56] But the real attitude shift came after a highly worrying event. In 1772 a general test was made in Ferrol on all the cannons sent from La Cavada-Liérganes and made in the previous

51 Torres Sánchez (2008: note 16).

52 Gil Ossorio (1974: 95).

53 Torres Sánchez (2008: note 24).

54 Gil Ossorio (1974: 95-96). No mention is made of the purchase year.

55 Alcalá-Zamora (1999: 64) (2004: 118).

56 Alcalá-Zamora (2004: 120).

decade: from a total of about 1,500 cannons 1,169 of all calibres burst.[57] Any hopes of arming ships with home-built cannons vanished in a puff of smoke.[58] Not only did the Spanish iron industry seem incapable of producing enough but it had even run out of stores. Now it was certainly necessary to buy abroad, regardless of whether or not the necessary measures were taken to improve Spanish output.

From that moment on, as Torres Sánchez has pointed out, the Swedish merchants who turned up on the Spanish coasts offering cannons for sale were better received than before and the Spanish authorities tried to trade the cannons off against salt. During these years the company of the Russian consul in Cádiz, Rey Brandemburgo, also stepped up its activity.[59]

Many considered that the only way of continuing the naval programme was to turn to Great Britain. The "giant" operation, as Alcalá-Zamora dubbed it due to the number of guns involved in the contract,[60] was the purchase of cannons from the then famous Scottish company Carron. The event has been studied by Gil Ossorio, who fleshes out the details of the whole affair.[61] A new negotiation with the Scottish company began in 1773 and the final deliveries were made in 1778. In all, 4,498 cannons were received, from which, after the agreed reception tests, the Spanish authorities accepted only 3,132.[62] As Alcalá-Zamora points out, this sum was tantamount to a decade's production by La Cavada-Liérganes,[63] i.e., the decade's output that had been destroyed in the tests of 1772. From our point of view is more than that, since the average production of that decade, according to Alcalá-Zamora's figures, was 213 cannons per year, which means that the cannons bought from Carron co. equalled the production of almost 15 years. From another perspective, as Torres Sánchez points out, these cannons represented at that moment, 61,7 per cent of all the cannons of the Spanish navy[64].

At this time there was another less *'attention-grabbing'*[65] but equally important purchase of iron cannons in France. In 1778 the Navy Treasury had paid 4,9 million

57 Ibid, p. 120; Torrejón Chaves (1997: 314).

58 At that moment Ceballos's expedition to Buenos Aires was being prepared.

59 Torres Sánchez (2008).

60 Alcalá-Zamora (2004: 119).

61 Gil Ossorio (1974).

62 Ibid. See summary of deliveries and rejections on p. 103.

63 Alcalá-Zamora (2004: 119).

64 Torres Sánchez (2008).

65 Ibid.

reales for the purchase of cannons in France, a sum equal to little more than one half of the cost paid for the cannons bought to Carron.

We do not have more direct information of other purchases of foreign cannons after 1778, so for the moment, we have to assume that that was all.

What was the importance of purchases abroad in the seventies and eighties? Torres Sánchez, who has made an educated guess of the average artillery cost for the period 1772-1784, breaks it down as follows:[66]

Salaries	24.0 %
Manufacturing	17.1 %
Asentistas	10.4 %
Gunpowder	19.4 %
Fortifications	29.0 %

Two aspects of this author's interpretation are of particular interest to us here. Firstly the low manufacturing cost, even though this was on the increase, shows that manufacturing did not keep pace with increasing warfare needs: *'Artillery production,'* Torres points out, *'did not rise to the challenge of war'*. Secondly the unfulfilled demand had to be met from artillery purchased abroad. The *asentistas* (contractors) figure reflects this, and although the general average is the lowest of all the costs, the salient fact is, firstly, that it exists at all, when this cost had been negligible for so long, and, secondly, that in some years, for example around 1775, it climbed up to almost 25 per cent of all costs. Nevertheless, it is true that these figures are talking of all artillery needs, being them iron cannons or bronze cannons, or even muskets and pistols.[67]

4. The implications of buying abroad

If we look at the available literature on the subject of artillery in general terms, we might conclude that all iron cannons used by the Spanish Navy during the eighteenth century were Spanish made.[68] But the reality was not exactly like that, as we have seen

66 Ibid.

67 In the Spanish records of the time the term artillery was sometimes used in a very general way, not only for cannons.

68 Maybe the only exception to this is the recent essay by Torres Sánchez (2008).

and explained for a number of cases. Some studies written a few decades ago did not ignore the purchase of Carron cannons, but they don't make any kind of assessment about it. This purchase was not unimportant from the economic point of view: 9 millions *reales* is not a small figure, but even if this amount could be overlooked, what cannot be forgotten is the quantitative significance of more than 3,000 pieces of ordnance and even more, the qualitative importance of this and other purchases in a country that wanted to be self-sufficient in this delicate area.

The first general implication of buying cannons abroad is that Spain recognised the faiture of the theoretically well organised mercantile system of defence. It is a failure in ideology as well as in strategy which means that ideology was not fitted for the real strategic situation. Mercantilism aimed to a sourcing of provisions which were totally national. Uztáriz had stated very clearly that *'in Spain there is great plenty of good materials of all sorts, artillery, arms, and other military stores, both for the land and sea service'*. He also detailed how to find all these wherewithal, *'the places where they are; a way to improve the fabricks of rigging and sailcloth; the importance of augmenting and fortifying the dock yards, of preserving the forests of timber…, and so on'*.[69] Among, *'all sorts of artillery, arms'*, Uztáriz specifically mentioned the cannons factory of La Cavada-Liérganes and the ammunition factory of Eugui.

Uztáriz's wishes and previsions were shared by the Spanish government and political attempts were oriented to that objective, but in spite of all that, Spanish output of new ordnance was not always enough to fulfil this idealistic view. So the importation of cannons became a subject not only of economic importance, but of political interest. In the way how the Spanish State acted in relation to this problem we can see hints about what were the priorities of Spanish State's administrators; as a matter of fact, ideology was overcome by reality and urgent problems became a test to establish the point to which mercantilist ideas were feasible.

If we want to asses the implications of buying abroad we need first a prior knowledge of the domestic production of cast iron cannons in eighteenth century Spain in order to establish a reference of the supplying possibilities.

Already in the seventeenth century the only one enterprise of La Cavada-Liérganes was quite a modern factory, featuring several blast furnaces, the first ones in Spanish

69 Uztariz, G. de, *The Theory and Practice of Commerce and Maritime Affairs*, 1751, vol. II, chap. LXXII, translated by J. Kippax.

history, although further modernisation will fail later on in the eighteenth century. The change of owner and management when in 1763 the factory was bought by the State, created a time for adaptation and other bureaucratic problems that for a while limited the production. Nevertheless the Administration persevered. If we ask ourselves how the contractor state dealt with growing complexity,[70] the answer for the Spanish State was turning to direct management in order to get more control of the production. It was only from this position that the Administration was willing to increase investment, as it actually did in this and other cases.[71]

Another problem is related with quality. In general terms, the quality of the cannons of La Cavada-Liérganes was good, at least, as good as any other cannons produced elsewhere in Europe during most of the century, as it has been the case during the seventeenth century. Nevertheless, since the late 1760s the quality went down at some periods. The fatal event of 1772 that took place in Ferrol was a proof of the fatal defects of the whole production of the previous decade. After that event new technological processes were introduced, but they did not work always well. In fact, later in the century attempts to implement new technology were abandoned.

This is the background against which we have to interpret and consider the information contained in the table below, from which we can draw the main conclusions about what really were the implications of buying abroad.

70 See R. Knight and M. Wilcox's paper in this book.

71 For another examples, Rabanal Yus (1990). Particular cases are the factory of cannon balls of Eugui (González Enciso, 2011: 302-03), or the bronze cannons at Seville (Aguilar Escobar, 2010).

Table 1: Number of cannons demanded, actually bought and produced

Year	*Contract/merchant*	*Nº cannons asked for (a), or tested (t)*	*Nº of cannons actually bought*	*Annual average production in pieces*
1718	Arizcun (Nav.)	80 (a)	0	100
1718	Gozani (Mad.)	280 (a)	0	100
1718	Sweden merch.	50 (a)	50	100
		Subtotal: 410		3/5= x 4,1
1728	Dufay (Fr.)	400 (a)	¿200?	154
		Subtotal: 400		3/5= x 2,5
1739	Gozani	92 (a)	92	154
1739-41	Gozani	89 (a)	89	154/116
		Subtotal: 181		3/5= x 1,1
1766	Sweden merch.	177 (t)	26	269
1767	Sweden merch.	600 (t)	0	269
1767	Rey Brandemburg	419 (a-t)	¿?	269
¿1768?	Sweden merch.	200 (a-t)	0	269
		Subtotal: 1,396		3/5= x 5,1
1773-78	Carron Co.	4,498 (a)	3,132	148/111
1778	French State	¿1,500? (a)	1,500	111
		Subtotal: 5,998		3/5= x 46,1
Total		*8,385*	*5,089*	

All the moments in which foreign purchases of iron cannons were made, as far as we know, are listed in the table. In *column 2* we have the name of the contractors, or merchants, when we know their names. If the name is known it means that the Administration had any kind of relation with those persons, which implies that in case of necessity the state knew were to go, as was the case during most of the first half of the century. When the names of merchants are unknown, as it happened in particular with the general reference as *'Swedish merchant'*, it means that they were random merchants that appeared in the Spanish ports offering their merchandises, what implies that there was not reliable information about them.

In the third column we can see the amount of pieces offered in each case with the distinction between *'asked'* (a), that is, requested by the Spanish Government, or simply

'tested' (t), which means accepting to test cannons from unknown merchants working on a clear look-for-opportunity basis. Some of the (a) cases were also influenced by merchant pressure, so I have marked them as (a-t), which means it was not enterly the initiative of the State. In the fourth column we have the number of cannons actually bought or accepted. These figures can give us a notice of the effectiveness of all those buys.

Finally, in the last column, we have an approach to the average annual production of La Cavada-Liérganes. This is not exactly the real output of the factory. In fact, Alcalá-Zamora did not compile a detailed series of annual production of cannons, he gave instead information of two different but similar concepts: 1) total numbers of pieces of ordnance produced for periods, and 2) number of cannons set up in new built ships. We have preferred the second since the periods established there are shorter and fit better with our chronology, so *column 5* contains, in fact, the average number of cannons set up in new built ships, which is in fact an indirect reference of accepted production.[72] It is a pity, it refers only to ships of the line, not to all kind of possible vessels.

Why cannons were bought in those five periods we can see in the table?

The year 1718 lies within the period of the revisionist policy, when Alberoni tried to conquer lost Italian territories. More precisely, in 1718 were being built six new 60 guns ships in order to help in the invasion of Sicily.[73] It was a moment of urgencies: ships had already sailed for Sicily the previous year, but guns were needed as a prevision for new needs or to support further action. At least, 360 new guns were needed at a time when the average production was only 100. Only 50 guns ever arrived because the war broke out in 1719.

The second moment, 1728, was also a peak of urgency because of the siege of Gibraltar of the previous year and the imminent war which did not break out in this case. The production of La Cavada-Liérganes had improved, but maybe not yet enough to match the needs of a then increasing naval building program. It seems that in time of need, the administration desired to have more than enough, or maybe administrators were not confident of a quick response by La Cavada-Liérganes, since the new contract had been signed only a year before.

72 Alcalá-Zamora (2004: 63, n. 126, 118).

73 Merino (1986: 99).

The third moment, 1739, was a moment of open war. Nevertheless the needs seemed smaller, maybe because the previous peace years, without looses of artillery, had permitted to stock up enough pieces. In fact, the quantity asked this year is the lowest proportion in all the century in relation with production levels.

In the second half of the century the story was quite different. During the sixties, just after the state took over the factory, the administrators of the Navy were concerned with the requirements for an urgent and wide reconstruction program considered urgent and wide in scope after the experience of the Seven Years War. There was a kind of anxiety about having an improved arsenal. The reality was against these desires because at the end of the sixties the factory of La Cavada-Liérganes gave signs of not being able to increase its production, at least for the moment —new administration, bureaucracy, failures in technical improvements being tried, etc.—. In fact, some people in the Navy advised to buy outside a good number of cannons to avoid shortages.

As a consequence of all that, the administration produced a disordered series of attempts to buy anything that appeared and could be useful. The result was spending money and efforts in different tests with no result. In 1772 the worst predictions became a reality when the bursting out in Ferrol and many thought that La Cavada-Liérganes cannons were of no credit. The state made a clear and reasonable action to provide for the supply of artillery by buying it where it was supposed to be best, such as from the Carron Co. Some years later, in 1778, Spain insisted in buying foreign artillery, in this case to the allied country of France.

So in five moments through the century, urgency was the reason for buying abroad, but urgency had different causes: in the first half of the century the urgent needs appeared to be punctual and aimed to complement a still short production, but a production that was, nonetheless, growing and of good quality; whereas in the sixties, the main reasons to act urgently were quality failure and low expectations of growth. It is true though, that output will grow later. Nevertheless, needs were much bigger in the second half of the century not only to match the increased shipbuilding program, but to counteract the effect of losses in battle, a factor that had been almost negligible during the first half of the century.

A way of visualizing this difference in both periods is to try to quantify in relative terms the demanded quantity in relation with the average production. As we can see in the table, during the first half of the century this ratio was falling: in 1718 the quantity asked for was four times bigger than the annual average production, whereas in 1739 it was only 1.1 bigger:

1718: 410 on 100	410 % (x 4.1)
1728: 400 on 154	259 % (x 2.5)
1739: 181 on 154	117 % (x 1.1)
1766-68: 1.396 on 269	518 % (x 5.1)
1772-78: 5.998 on 130 (average of 148 and 111)	4,613 % (x 46.0)

In the second half, this relation widened. It is fivefold in the 60s, but in the 70s, the combined purchases from Carron and France, supposed a quantity 46 times bigger than the average annual production of those years: of course, it was necessary to substitute the failed production of more than a decade.

We don't have any more data about possible foreign purchases of iron cannons after that date, so we have to suppose that there were not more buys. This fact has several implications. One is that La Cavada-Liérganes restored its production in quantity and quality so more foreign buys were not necessary. At the same time the navy building program came down a little bit during peace years, less cannons being needed. If we think that there would be no bigger confrontations, nor losses of cannons between 1780 and the revolutionary wars, the production of La Cavada-Liérganes would have been enough for what was exactly needed.

To sum up, even if the data are scarce, they tell us a clear story: what we see is a loss of capability in the long run to to meet increasing naval needs during the century. Cannons output and shipbuilding did not maintained a continuous growth, or better they came to a measured point of false equilibrium which in the final analysis was a sign of the financial weakness of the Spanish State. Since the relative results were worst in the last third of the century, when cannon factory was under State management, we can conclude that there is a failure of the State as producer of ships and cannons, taking the expression in comparative terms, in comparison to the levels reached by its most direct rivals.

5. The state, an inefficient buyer

What is the causal relation between buying outside and low production? In other words, what is first, the failure of production or the resort to buying outside? As in other sectors of economic activity, the State distrusted the contactors, and it may be this disposition that led the State to buy outside when they felt the pressure of the

urgency. Anyway, other possible contractors were not possible since the State had always given priority to a single monopolistic contractor, preventing in practice the appearance of other producers. Since the exportation of arms was prohibited, no possible entrepreneurial activity could be developed without State demand.

Besides that, there is also a failure of the State as a buyer. What those figures tell us is that a shopping policy for foreign cannons never existed. Purchases were thought only for particular moments, and there were always made in a state of urgency. The result was a great failure. *Column 4* of the table gives us the number of cannons actually bought. In 1718 it was the war what prevented the pieces to be sent to Spain from a new hostile country —a fact that was not expected before—. In 1728 it was not possible to arrive to a clear agreement with the merchant in the way to make the payment, so the contract was very slow and we are not certain if those 200 hundred cannons finally arrived. Whatever the reason could be, the results are clear: 250 cannons were actually acquired out of 810 demanded up to 1728, only a 30.8 per cent rate of success. In 1739 there was total success; but it was a small quantity of ordnance demanded in relative terms.

The 1760s were completely different: all of the pieces that were tested in 1766-67 (777 in total), failed, but for 26! For the other 419 of 1767 we are not sure about the results, and the other 200 of 1768 were also rejected. All that meant that Spanish State was buying to unknown merchants who offered bad merchandise. That was not the best market place for a sovereign state. Finally they learnt and the last two purchases were better organised. We can ask ourselves why they did not accept the offer made by Carron Co. in 1769 and waited till the great failure of 1772 to resort to that company, or why they did not buy more pieces afterwards?

Other questions are related to France and Sweden. Why Spain did not turn to France before? It seems more reasonable to buy there, at least France was an allied country. Why was Spain paying so much attention to the Swedish merchants and cannons which in the end failed in all the cases? It is not a small thing to organise the test for 600 cannons, as in 1767! And all of them burst out.

Yet another question deals with the relation between cannons made and ships built. Alcalá-Zamora seems confident with the idea that the production of La Cavada-Liérganes was enough to supply the number of guns needed by all the ships being built in Spain and Spanish America. However, we can see that production was felt as insufficient by the authorities at some crucial moments during the century. So, the domestic production of cannons was enough for matching shipbuilding or not? During

the first half of the century a total of 991 guns were demanded, although only 431 were actually bought, which means at least for those 431 guns (assuming that the 200 of Dufay arrived), the answer to the above question would be not, otherwise why were the pieces bought?

In the second half of the century the needs were bigger and that could be the reason for testing so many cannons brought from Sweden, in particular during the 1760s, but those hypothetical needs were never realised. What in clear is that at least 4,632 guns bought in the seventies for arming Spanish ships were of foreign made because domestic production failed.

6. A quantity not so small

What exactly the figures of foreign ordnance mean? Up to now different authors had not assessed the importance of all foreign purchases of ordnance for new ships. We know that foreign cannons were not only those famous 3,132 pieces from Carron, they form a figure quite bigger. If we sum up all foreign cannons accepted during the whole century, assuming that there was not any more buy after 1778, we see that at least 5,089 (50+200+181+26+3,132+1,500) cannons in the Spanish ships had not been made in Spain, the majority of them (4,632 pieces) having been bought between 1773 and 1778 from Carron Co. and France.

What is then the quantitative importance of those foreign purchases in relation to the total Spanish production? According to Alcalá-Zamora, the total production of La Cavada-Liérganes from 1716 to 1808 amounts to a figure of 19,300 pieces of ordnance.[74] In that case, the 5,089 foreign pieces purchased abroad during the century signified the 26,36 per cent of the total production of La Cavada-Liérganes for the period 1716-1808. This percentage is important enough if we take into account that the objectives of Spanish administrators were to be self-sufficient: more than a 26 per cent deviation from to the objective is quite a failure.

Nevertheless, that figure is more important if we consider a shorter period. The fact that the foreign purchases finished in 1778, as far as we know, doesn't mean an improvement of Spanish production, quite on the contrary, during the last third of the century shipbuilding was in decline, although output in La Cavada-Liérganes did

74 Alcalá-Zamora (2004: 107, n. 253).

not decline as much. Be it as it may, the importance of foreign purchases has a more clear significance if we compare it with the production of the period when those buys were made, so we can take the period 1716-78, the first date matching with Alcalá-Zamora's statistics, whereas 1778 is a year that also lies within a period when a second, and last in the century, peak in shipbuilding was reached.

The term of comparison is now again the number of pieces of ordnance set up in new built ships of the line. According to Alcalá-Zamora, between 1716 and 1775, some 133 ships of the line were launched, armed with a total 9,260 pieces of ordnance.[75] What we found is that the total 5,089 pieces bought or ordered from outside in the period is a figure meaning the 54.95 per cent of the total amount of ordnance actually set up on new built ships of the line, which is quite an impressive figure. It is true, though, that a number of frigates, with their correspondent ordnance, were built in the same period, and that we should make allowance for the three years difference (1775 to 1778), so that the above percentage would be reduced —although only a little—, if related to the real total production of the factory in that period. Foreign purchases had a more significant impact if we consider that they were made in the moments of greater shipbuilding activity, which run between 1726 and 1775, meaning that cannon production was not able to keep pace with real needs.

The question that we cannot answer now is why the Spanish authorities did not foster cannon manufacture. What is clear is that when the administrators felt the pressure for more guns —in particular after the arrival of Charles III, after the end of the Seven Years War—, the decision was to nationalise the factories. In doing that what the authorities are telling us is that they thought growth could be better achieved trough a bigger public investment, but also with the condition that the State itself was the owner and manager of the enterprise. Not simply spending on the market, which they did not trust for the provision of strategic products, but investing in factories directly controlled by the Administration. The same happened with the bronze cannons factory in Seville, and with the ammunition factory at Eugui, among other factories. So far, gun, arms and ammunition making, were considered, as well as shipbuilding, a prolongation of the administration, not an entrepreneurial activity. All of them failed in the end.

75 Alcalá-Zamora (2004: 63, n. 126).

Modern works cited

AGUILAR ESCOBAR, A. (2010). *Cañones de bronce para el ejército. Historia de la Real Fundición de Sevilla en el siglo XVIII*, Madrid, Ministerio de Defensa.

ALCALÁ-ZAMORA, J. (1974). "Producción de hierro y altos hornos en la España anterior a 1850", in *Moneda y Crédito*, 128, pp. 117-218.

ALCALÁ-ZAMORA, J. (1999). *Altos hornos y poder naval en la España de la Edad Moderna*, Madrid: Real Academia de la Historia.

ALCALÁ-ZAMORA, J. (2004). *Liérganes y La Cavada. Historia de los primeros altos hornos españoles (1622-1834)*, Santander: Estudio.

ALONSO AGUILERA, M. A. (1977). *La conquista y el dominio español de Cerdeña (1717-1720)*, Valladolid: Universidad de Valladolid.

AQUERRETA, S. (2000). "La Casa de Arizcun, 1725-1742: las estrategias financieras de un hombre de negocios en el Madrid de la Ilustración", in FERRER BENIMELLI, J. A. (2000). *El Conde de Aranda y su tiempo*, Zaragoza: Institución "Fernando el Católico", pp. 659-78.

CALVO POYATO, J. (1989). "La industria militar española durante la Guerra de Sucesión", in *Revista de Historia Militar*, 66, pp. 51-71.

CASTRO, C. de (2004). *A la sombra de Felipe V. José de Grimaldo, ministro responsable (1703-1726)*, Madrid: Marcial Pons.

CIPOLLA, C.M. (1965). *Guns, Sails and Empires*: Minerva Press.

DELGADO RIBAS, J. M. (2007). *Dinámicas imperiales, 1650-1796*, Barcelona: Bellaterra.

DUBET, A. (2008). *Un estadista francés en la España de los Borbones. Juan Orry y las primeras reformas de Felipe V (1701-1706)*, Madrid: Biblioteca Nueva.

GIL OSSORIO, F. (1974). "Artillería británica para la marina española del siglo XVIII", in *Revista de Historia Militar*, XVIII, 37, pp. 93-103.

GONZÁLEZ ENCISO, A. (2010). "Empresarios navarros en la industria de armamento del Estado. La fábrica de Eugui", in TORRES SÁNCHEZ, R. *Volver a la "hora Navarra". La contribución Navarra a la construcción de la monarquía española en el siglo XVIII*, Pamplona: EUNSA, pp. 159-212.

GONZÁLEZ ENCISO, A. (2011). "Military Expenditure and Entrepreneurial Promotion in Modern Spain: An Unsuccessful Expedient. The Example of the Eugui munitions Factory", in CONWAY, S. and TORRES SÁNCHEZ, R., *The*

Spending of States. Military Expenditure during the Long Eighteenth Century: Patterns, Organisation and Consequences, 1650-1815, Saarbrücken: VDM, pp. 285-312.

GONZÁLEZ ENCISO, A. (forthcoming). "Spanish Occupation of Italian Territory and Maritime Control of the Western Mediterranean in the Eighteenth Century" paper presented to the *Colloque International. L'Occupation militaire des espaces maritimes et littoraux en Europe de l'époque moderne à nos jours*, Paris, Ecole militaire, 16-18 March, 2011.

KAMEN, H. (1974). *La Guerra de Sucesión en España, 1700-1715*, Barcelona: Grijalbo.

MERINO, J. P. (1986). "La Armada en el siglo XVIII", in HERNÁNDEZ SÁNCHEZ-BARBA, M. and ALONSO BAQUER, M. (1986). *Historia social de las fuerzas armadas españolas*, Madrid: Alhambra, pp. 85-147.

PARKER, G. (1989). *The Military Revolution*, Cambridge: Cambridge University Press.

RABANAL YUS, A. (1990). *Las reales fundiciones españolas del siglo XVIII*, Madrid: Estado Mayor del ejército.

RIBOT GARCÍA, L. (2006). *El arte de gobernar. Estudios sobre la España de los Austrias*, Madrid: Alianza Editorial.

THOMPSON, I.A.A. (1976). *War and Government in Habsburg Spain, 1560-1620*, London: The Athlone Press.

TORREJÓN CHAVES, J. (1997). "La artillería en la Marina española del siglo XVIII", in *Militaria. Revista de Cultura Militar*, 10, pp. 291-324.

TORRES SÁNCHEZ, R. (2000). "Producir o comprar. La demanda de la corona española de productos industriales en el siglo XVIII", in RIBOT GARCÍA, L. A. and DE ROSA, L. (2000). *Industria y época Moderna*, Madrid: Actas, pp. 95-132.

TORRES SÁNCHEZ, R. (2008). "Velas sin cañones. La eficacia de las reformas artilleras tras la Guerra de los Siete Años", in MORALES PADRÓN, F. (2008) *XVII Coloquio de Historia Canario-Americana (2006)*, Las Palmas de Gran Canaria: Casa de Colón, Gobierno de Canarias, pp. 1717-25.

VEGA VIGUERA, E. de la (1992). *Sevilla y la Real Fundición de cañones*, Sevilla: Guadalquivir.

Contractors, Warships of the Royal Navy and Sea Power, 1739-1748

8

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The interaction of commerce, industry and the state in the prosecution of warfare is one of the enduring relationships in political and institutional history. The state may be the director of military policy, but the execution has always depended on its ability to mobilise the economic and social resources of the society under its control. This was certainly the case of Britain in the long eighteenth century. Britain's policy depended on the strength of her navy. Navies are complex organisations that require a depth and breadth of skills and capabilities, ranging from the ability to co-ordinate the construction and maintenance of warships through to the efforts of skilled manpower that kept these large vessels at sea over prolonged periods in distant waters. The ability of the British and North American maritime communities to provide the real physical resources that turned tax revenues and financial credit into large numbers of manned and functioning warships was one of the great achievements of the British state. The importance of the relationship between contractors and the state has been under discussion and investigation since the 1960s and although we have a good understanding of specific periods, particularly the Revolutionary and Napoleonic Wars (1793-1815), there is a great deal that still can be done.[1]

The Admiralty administrative records are a huge repository of information on ships, stores, victuals, contracts and contractors.[2] They are the foundation of modern

1 There is now a large literature on eighteenth century British naval administration, which includes substantial work on contractors and the contracting process. For a discussion of how this body of work developed, see R. Knight (2011: 225-42). See also, D. Baugh (1965), B. Poole (1944) and R. Morriss (1983).

2 The majority of these papers are in the *National Archives at Kew*, but there are also substantial holdings at the *National Maritime Museum*, Greenwich.

administrative history and fifty years of studying these records has not exhausted their riches. Once these are added to private and business papers that are also available, the task of fashioning a coherent and inclusive study is formidable.[3] Faced with the size of these holdings, it is natural that historians have focused on those documents that do most to illuminate the history of the Royal Navy —the building and maintenance of the great line of battle ships or the frigates upon which British sea power in this period rested—. Less attention has been paid to the contractors who built the smaller ships for the navy, and much less to those who sold completed ships or hired vessels to the service.

This paper is an initial investigation into the role of private shipbuilders in the growth of the Royal Navy during the war of 1739 to 1748. The subject has not been entirely neglected in the past. Professor Daniel Baugh drew attention to these contractors in his book on the naval administration of the period, and Professor Roger Knight has investigated the tonnages produced by private shipbuilders for the navy over a much longer period of time.[4] The main source for this investigation is the monthly "Admiralty Ship Lists" (Adm. 8) in the *National Archives*. They were compiled to show the disposition of each ship in service. The lists recorded the ships' names, rates, nominal crew size, number of guns, officers, where fitted out, when commissioned, when last paid and cleaned, if sheathed, when it left England and its present position. There was always a reporting time lag when ships left station and when accidents or action removed a ship from the list. There were the odd clerical errors in transcribing the list to summary sheets but, on the whole, the list gave the Admiralty an overview of the strength, and by inference, the probable deterioration of each of its warships in different parts of the world. The focus of this paper is not on the tonnage of vessels, but their type in order to elucidate what the private shipbuilders and shipowners were contributing to the operational power of the Royal Navy.

1. The Size of the Royal Navy, 1739-1748

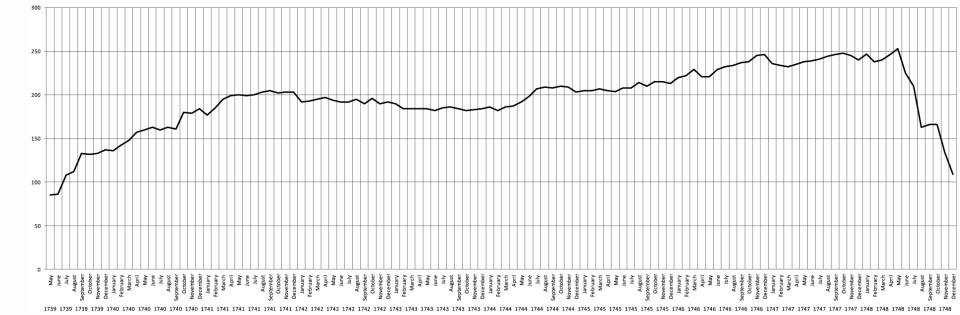
The Admiralty Lists contain the names of 432 different ships between May 1739 and October 1748. During the war 382 vessels were noted as commissioned; 341 of these

3 The scale of the task is such that it has attracted some public funding. See R. Knight and M. Wilcox, (2010).

4 D. Baugh (1965: 253-261); R. Knight (1985: 35-50); R. Knight (2003: 34-51).

ships were added to the active list between during these years and of these 314 were actually sent to sea at some time. The rest were never completed or fully commissioned. The maximum number of ships listed in service at any time was 253 in May 1748. The growth of the fleet during the war showed an unremarkable trend. There was a sharp rise in numbers from May 1739 to the winter of that year, when it plateaued until the spring of 1740, after which it rose again. The number of ships in commission rose slowly during 1740-41 until it peaked in September 1741 at 203 vessels. Thereafter, there was fall until January 1743 when the number of ships in commission was listed as 182. The size of the Royal Navy hovered around 180 to 195 until it began a sustained rise in March 1744 to reach its peak in May 1748. After this it declined rapidly as it became certain that the peace preliminaries, signed in February, would lead to the conclusion of the war that autumn.

Graph 1: Growth of the Royal Navy, 1739-1748

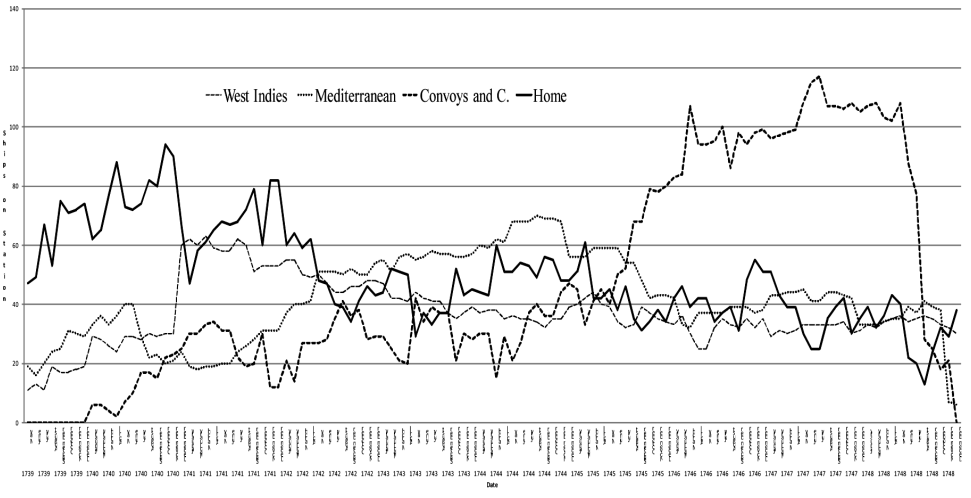


The fluctuation in the number of ships, particularly the fall 1741-1743, deserves some comment. It had less to do with ship building or contracting and far more to do with manning. During 1740, the major limiting factor on mobilising the fleet was the lack of manpower.[5] At the end of that year, a major part of the fleet was despatched to the West Indies with an military expedition to capture some of Spain's American or Caribbean colonies. Many of the ships had sailed under-strength as seamen could not be had. Towards the end of 1741 a number of those ships came home again, but

5 See R. Harding (2010).

the attrition of manpower in the West Indies had been terrible and they came back short of hands.

Graph 2: Ships in the West Indies, Mediterranean and Home Stations, 1739-1748



In the meantime, the War of Austrian Succession had broken out in Europe and Britain was committed to supporting Austria. This entailed sending more ships to the Mediterranean in support of the Austrians in Italy. The number of British warships in the Mediterranean continued to rise, until by May 1742 there were more ships in those waters than were available for deployment in home waters. While the attrition on manpower was not as heavy in the Mediterranean as in the Caribbean, the need to supply ships going to the Mediterranean was a further heavy drain on seamen in Britain. As these ships returned, they too, were short-handed. An important change occurred in during 1745. Throughout 1744 the Admiralty had tried to have ships returned from the Mediterranean, but had met resistance from the commander there, Admiral Thomas Mathews. At the very end of the year, a large number had finally arrived home and the Jacobite rebellion, which broke out in July 1745, prompted a continuing reduction of numbers in the Mediterranean, in order to concentrate the fleet in home waters. This concentration was also facilitated by the French decision not to operate in large squadrons, but to split their fleet in order to protect the movement

of convoys. The concentration of the Royal Navy in home waters, which continued until the end of the war was far more efficient in terms of manpower. Seamen could be turned over to different vessels as ships came in for cleaning or refit. There was less attrition than on distant stations, where desertion and disease were serious problems. The concentration at home and the reduced strain on the manpower pool from mid-1745 until the end of the war, seems to have enabled the fleet to build up both the numbers of active vessels and logistical support which, in turn, enabled it, finally, to take the initiative in home waters. In 1746 the fruits of this concentration were not evident, but in 1747, two victories against inferior French squadrons covering convoys (First and Second Battles of Finisterre in May and October respectively), allowed the Royal Navy to end the war with a claim to superiority in battle and a measure of control over regional waters. In broad outline, this was the operational record of the navy, but what did the private shipyards contribute to the situation?

During the seventeenth century it had been common to contract for the building of major warships with merchant shipbuilders. The reason was practical —even in peacetime—, the rapid expansion of the fleet, such as that during 1677-78, was impossible without recourse to the private yards. During the wars of 1689-97 and 1701-13 it was even less practicable to confine new building to the royal yards, despite concerns over inflation and quality. The royal dockyards were needed to repair and refit the large ships of the line and could not afford to tie up labour, slipways or dry docks for building. However, during the relatively peaceful years that followed and after the expansion of the royal yards during the wars, it was possible for virtually all new ships, designed according to the revised 'establishments' of 1719 and 1733, to be built, or begun in the royal yards.[6]

Therefore, with the passage of time and the scrapping or selling of the older warships, it is no surprise that by May 1739, all the ships in commission, except one, had been built in the Royal Dockyards.[7] The ships of the line, carrying between 60 and 100 cannons, formed the main force for a line of battle. In May the Royal Navy had 90 of these ships in varying states of repair, of which 23 were currently in commission. The others were in 'ordinary' or on the stocks as partially completed new builds or rebuilds. Once war broke out, some of the ships that had been laid up in ordinary, that is

6 B. Lavery (1983: 42-84).

7 The exception was the *Hampton Court* (70) launched by Taylor of Rotherhithe in August 1709. She was one of the few ships of the line of this period that had survived un-rebuilt. D. Lyon (1993: 34).

stripped down to the main masts and made watertight, were prepared for sea. These were refitted, stored and put into commission over the next few years. This had to be done selectively. The manpower demands of the very large ships were heavy and because of their size they were less flexible for deployment overseas. Only the *Victory* (100) of the seven largest ships, the first rate three deckers, was commissioned during the war.[8] Similarly, the second rate ninety and eighty gun ships were commissioned sparingly to be used as flagships, and then mostly confined to home waters.[9] At the beginning of the war the mainstay of the line of battle were the seventy and sixty gun ships. Those in ordinary gradually came into commission and new ships were ordered during the war. Overall the number of ships of the line on the lists rose by 60, of which 39 were built in the royal dockyards and twelve others were added to the line by prizes. Only nine were built by private builders.[10] Of the nine ships built in private yards between 1740 and 1746, eight were 60 gun ships, while the last was a 70 the *Vanguard,* ordered in October 1745 from Ewer of Cowes, Isle of Wight, but not launched until April 1748 —too late to see service in the war—.

Clearly, at this level the power of the Royal Navy rested on the Royal Dockyards and the contractors who supplied those yards. The activity of the royal yards can be seen in outline in the following table. The three bigger yards of Plymouth, Portsmouth and Chatham were engaged in the early years of the war putting the ships in ordinary into commission. As the war progressed their focus was on repair and maintenance of the active fleet and some of the ships started in these yards were not completed before the war ended. Sheerness was almost entirely devoted to refit and repair. The two Thames yards, Deptford and Woolwich were the busiest, fitting out smaller vessels and in the case of Woolwich adding the greatest number of ships of the line to the Admiralty list. Despite the pressure placed upon the royal yards during the middle

8 The *Victory* was lost in a storm in mid-Channel in October 1744.

9 Only the *Neptune* (90) went to the Mediterranean in 1742 as flagship for Commodore Lestock.

10 Of the 39 ships of the line listed in royal dockyards, ten were not completed before the war ended. Two Spanish ships of the line were taken. The *Princessa* (70) was taken in April 1740 after a battle with four British 70s. The *Galicia* (70) was captured at Cartagena de Indias in 1741 and expended there as a floating battery. The *Glorioso* (74) was captured by the *Russell* (80) in October 1747. The French ships added to the British list were the *Vigilant* (64), captured a Louisbourg in June 1745, the *Mars* (64) taken by the *Nottingham* (70) in October 1746. *Intrepide* (64), *Invincible* (64), *Terrible* (74), *Monarque* (74) *Fourgeaux* (64), *Magnamine* (74), and *Trident* (*64)* were all taken at the Battles of Finisterre in May and October 1747.

years of the war for refit and maintenance, the yards continued to be the core of the ship of the line supply.

Table 1: Royal Dockyard Building Activity, 1739-1748

Dock-yard	*Plymouth*	*Ply*	*Ports-mouth*	*Ports*	*Cha-tham*	*Chat*	*Sheer-ness*	*Sheer*	*Wool-wich*	*Wood*	*Dept-ford*	*Dept*	*Totals*
Date	*Total*	*Line*	*Total*	*Line*	*Total*	*Line*	*Total*	*Line*	*Total*	*Line*	*Total*	*Line*	
1739	0	0	0	0	0	0	0	0	0	0	0	0	0
1740	1	1	1	0	2	1	1	1	1	1	1	1	7
1741	2	1	3	3	0	0	0	0	1	0	2	2	8
1742	0	0	1	0	1	1	0	0	1	0	2	2	5
1743	0	0	0	0	0	0	0	0	2	2	1	1	3
1744	0	0	1	1	2	1	0	0	0	0	2	1	5
1745	1	1	1	1	0	0	0	0	2	2	2	1	6
1746	1	0	0	0	0	0	0	0	1	0	1	1	3
1747	0	0	0	0	1	1	0	0	0	0	1	1	2
1748	0	0	0	0	1	1	0	0	0	0	0	0	1
													40
Ships	5	3	7	5	7	5	1	1	8	5	12	10	29

If the line of battle were the sum of sea power in this period, the role of contractors would have been limited to supplying the these yards with the stores and materials needed for construction. However, it is clear from the following graph that the British state relied heavily upon private contractors not just for materials, but for other classes of warships. Out of a total of 313 vessels added to the fleet during the war, 211 (or 67 per cent of the total) were built by, hired or bought directly from the private market. Thus, just under half the expansion of the fleet in numbers, if not tonnage, can be attributed to the private maritime community. In all classes, except the line of battle, private contractors dominated the expansion of the fleet. These contractors were not limited to the minor vessels, but contributed ships of significant force. The fifty gun ship was still officially a line of battle ship, although increasingly not used as such.[11]

11 Changes to the armament of the 50 and 60 gun ships during the 1730s had reduced the firepower gap between the two rates, but even increases in the established dimensions of the 50 during the war did not produce a satisfactory ship to stand in line against enemy 74s or larger. See R. Winfield (1997: 47-52).

Over twice as many of these ships were built in private yards than the royal yards. The refitting and up-gunning of the 40 gun ship to the 44 and the building of new 44s during the war, was largely carried out in private yards. The smaller vessels from the 36 downwards were almost all built in the private shipyards, bought directly from merchant owners or hired from them.

Table 2: Contractors and the Growth of the Royal Navy, 1739-1748

Rate	*DY Built*	*Rebuilds*	*Priv Yds*	*Hired*	*Bought*	*Prizes*	*Total*
Line	39	0	9	0	0	12	60
50s	10	0	21	0	0	4	35
44s	2	4	39	1	0	3	49
36-20	3	0	38	4	1	13	59
Minor	2	0	41	27	34	34	138
	56	**4**	**148**	**32**	**35**	**66**	**341**

2. The Expansion of the Fleet, 1739-1748

The reversion to private contractors for a large proportion of the expansion of the fleet was no more than a traditional reaction to the demands of war. British naval administration during the eighteenth century was a mix of pragmatism and precedent from which change emerged. The question is not, therefore, why the British state turned to the private contractors, but what impact did it have on the operational capability of the fleet? In 1739 the war with Spain was expected to be a naval war and in British public opinion it was expected to be over very quickly. It had been axiomatic in British political rhetoric leading up to the war that the Royal Navy would easily defeat the Spanish fleet and Spain would be brought to terms. The Royal Navy was far larger than the Spanish fleet and, it was believed, the Spanish empire was exposed either to blockade of the critical silver trade routes between the Caribbean and Cadiz or even the capture of some colonial possessions.

However, to achieve this, the Royal Navy had to be expanded rapidly and its capability enhanced. This was to be an expeditionary war, with squadrons at sea in the West Indies, North Atlantic and Mediterranean. A balanced fleet or squadron required not just the ships of the line, which were being put into good order, but a range of smaller

supporting ships. These latter did not need to be specialist warships and could be converted easily from merchant vessels. Thus, the first eighteen ships to join the fleet were bought or hired from merchant ship-owners. Twelve were to be fire ships to accompany squadrons to sea. Two were bought to serve as hospital ships, one as a bomb tender and another as a store ship.[12] In total, 35 ships were bought from merchant ship-owners during the war. The main demand for these types of vessel came in 1740 as the fleet prepared to engage in the Americas and the Mediterranean, but there remained a very small but steady requirement for additional transports, store ships, bomb tenders or fire ships.

The pattern of demand for hired ships was rather different. Thirty two vessels of differing size were hired during the war and demand peaked in the second half of the war, after the Jacobite Rising of 1745. Most were small, ranging from unarmed vessels to those mounting sixteen guns. While the list includes some vessels hired by commanders in chief in the Mediterranean of the West Indies, the majority were employed in British coastal waters. They patrolled to prevent Jacobite and French supply vessels reaching the rebels. Later they were employed against the continuing nuisance of privateers. In the summer of 1748, five privateers were hired, the most powerful of which was the *Hardwicke,* mounting 44 cannons, hardly less potent than a frigate.[13]

Besides these small numbers of hired and purchased ships, the role of privately built warships was far more significant. One hundred and forty four warships were added to the lists by private shipyards. The immediate need for small vessels that were needed to support squadrons on station and coastal operations was supplied by purchase, but from 1740 to 1745 forty one contacts for new sloops, bomb vessels (as well as a hospital) were placed with private shipyards. None of these small ships were built in the royal dockyards.[14]

Equally important were the smallest class of ship-rigged cruiser, the sixth rate, twenty gun ship. It was clear by the end of July 1739 hat war was imminent. Orders had been sent to the West Indies and Mediterranean to prepare for hostile action. There was an immediate need for more twenty gun ships. These vessels were vital for

12 The only exceptions were the *Fraternity*, a vessel hired in the West Indies and the *Triumph,* a small prize vessel, which may have been intended as a fire ship, but was deleted from the list during 1740.

13 The others were the *Cumberland* (36), *Kingston* (36) *Eagle* (12) and *St Michael* (0).

14 Aside from these vessels, built, hired and purchased in British yards, nine prize vessels were added to the Royal Navy list.

patrol, reconnaissance, inshore and communications work. In peace-time a very few were attached to each station and none were kept in ordinary. However, these vessels which ranged from around 370 to 440 tons burthen could easily be constructed in merchant builders' yards. As war became increasingly probable during August and September the Navy Board signed contracts for eight new 20s with Thames shipbuilders. In October, the Navy Board extended the geographical range by giving two new contracts to builders in Hull, Ipswich as well as one more with a Thames shipbuilder. Two more contracts were completed at the end of 1740. These were the last of the class, all of which, except one, were built in private shipyards.[15] In 1741 the design was superseded by a new larger class of sixth rate, of approximately 500 tons and mounting 24 cannons. These ships were also built in private yards. The first contract was signed in August 1741and small number of new 24s was contracted throughout the rest of the war. In total, twenty-one of these vessels were built in private yards in Britain, one was purchased as a completed vessel from a shipbuilder and one, the *Boston,* was built in Boston on the orders of the commander at Louisbourg, Commodore Charles Knowles. Thus, during this war with the exception of one vessel, the entire production of sixth rate warships was provided by private shipyards. The contribution of the royal yards to this type of vessel was experimental design. Towards the end of the war, larger French ships, carrying up 30 cannons, were captured and added to the navy list. A captured St. Malo privateer, *Le Tigre*, was not taken into the navy, but its lines formed the basis for an experimental design, the *Lyme* class, examples of which were built at Plymouth and Deptford dockyards. Although not completed before the peace, these designs formed the basis for the next generation of fast sixth rate, the first of the genuine single-deck frigates to be produced for the navy.[16]

The private yards proved more than capable of producing these minor warships, but the demands placed upon them were extended to the larger 44s and 50 gun ships. A total of forty seven 44s were added to the navy list during the war. Three were prizes, one was a hired privateer, four were rebuilds of 50 gun ships and one was built in North America on the orders of Admiral Warren. The rest, thirty eight ships, were all built in private yards around Britain.

15 The exception was the *Solebay,* which was begun in a private yard, but was finished at Portsmouth Dockyard. D. Lyon (1993: 51).

16 R. Gardiner (1992: 12-14). The ships were the *Lyme* (24) and the *Unicorn* (24).

There was a greater balance between the royal and private yards in the building of the 50 gun ships. Nevertheless, of the thirty five 50s added to the navy list during the war, four were prizes. Ten were built in the royal dockyards, but twenty-one were provided by the private shipyards. Five of the ten ships completed in the royal yards had been laid down before the war. The other five were spread out during the rest of the war. The busiest time for building was between 1743 and 1745, after which only two new 50s were ordered.

Above the 50s were the true ships of the line, mounting sixty guns and more. There were sixteen 60s completed during the war, eight in royal yards and eight in commercial yards. However, three of the eight in royal yards were already on the stocks and had been there since 1737-38. In December 1740 two new 60s were ordered from private yards, but during 1741-42, there was a reversion to placing contracts in the royal dockyards, where four new 60s were constructed, but after this all except one contract was placed with commercial shipbuilders. In 1743 the two contracts were placed with private builders, the last contract being signed on 17th March 1746 and the last ship launched on 23rd November 1747.

During the war the burthen of the ships was generally rising. Whether this was a factor in the decision not to contract out the larger ships of the line to commercial yards is unclear. In later wars private shipbuilders had no difficulty in building and launching much bigger ships from their riverside and coastal slipways. Nevertheless, only one 70, the *Vanguard* was placed with a private builder, Ewes of Cowes, Isle of Wight, in October 1745 at the height of the Jacobite Rebellion. The ship was finally launched in April 1748, after the preliminaries of peace had been signed and was not put into service.

Taken as a whole, the commercial shipyards provided the Royal Navy with a rapid means of expanding the fleet. They contributed in a limited way to the expansion of the line of battle. They produced half of the sixty gun ships that were added to the fleet, and a greater proportion of the new ships that were contracted for after the outbreak of war. However, it was in all the other rates below the line of battle that the significance of the private yards was most obvious. Private shipbuilders provided most of the ships below the line of battle. The line of battle was crucially important, but battles between squadrons and fleets were very rare events. The two battles of Finisterre in 1747 were chase actions between unevenly matched squadrons. There was only one major clash of large squadrons during the entire war —the indecisive Battle of Toulon on 11th February 1743/4 (o.s.)—. The British public and the ministry

were profoundly concerned by the Battle of Toulon and the prestige of the Royal Navy did not really begin to recover until Anson and Hawke recorded their victories in 1747. In between Toulon and the battles of Finisterre there were no new clashes of fleets or squadrons, but seapower was exercised, effectively if undramatically, by long patrols, reconnaissance, blockade, commerce raiding and disruption, and amphibious operations, all of which were carried out by the smaller ships and craft provided by the private contractors. During 1746-47, the balance of power at sea was shifting in favour of Britain with a concentration of the main battle fleet in home waters and the constant employment of the smaller ships against enemy targets. In this respect as well the statistically measurable indicators of total numbers and tonnage, the private shipyards were a vital part of the development of British seapower during the 1740s.

3. The Shipbuilders

The purpose of this paper is not to explore in detail the business and social history of the shipbuilders, but some interesting features emerge from the navy lists. The British state took full advantage of the maritime community that it had around it. The following table summarises the geographical distribution of the shipbuilders employed by the Royal Navy.

Table 3: Private Ship Building for the Royal Navy, 1739-1748

Date	*DY*	*Rebuilds*	*Priv Yds*	*Hired*	*Bought*	*Prizes*	*Total*
1739	0	0	0	1	6	**1**	8
1740	8	0	18	2	10	**3**	41
1741	8	0	17	0	4	**7**	36
1742	5	1	19	0	2	**5**	32
1743	3	0	9	0	0	**0**	12
1744	5	3	22	8	5	**5**	48
1745	6	0	19	7	5	6	43
1746	3	0	19	5	1	12	40
1747	2	0	15	1	1	9	28
1748	1	**0**	6	8	1	10	26
Total	**41**	**4**	**144**	**32**	**35**	**58**	**314**
Not completed	15	0	4	0	0	8	27
Total	**56**	**4**	**148**	**32**	**35**	**66**	**341**

Excluding the two vessels built in North America, 146 contracts were placed by the Navy Board.[17] The centre of the Navy Board's contacts were with the Thames builders, but very rapidly builders around the East and South coasts were brought into the contracting network. Most builders had multiple contracts with the Navy Board and after the initial contracting of 1739-40, during which 53 contracts were agreed, the pace of contracts with individual shipbuilders settled to a small but steady flow as the number of builders working for the Navy Board expanded.

The geographical spread of the builders enabled the Navy Board to spread its risk among the shipbuilding community. However, some builders were particularly active. Bird of Rotherhithe not only received the most contracts (14), during the war, but was capable of taking on a wide variety of types, ranging from the 60 gun *Medway*, the first of the 60s contracted in a private yard, a 50 44s, a 40 20s, down to smaller vessels. Bird undertook nine contracts during 1739-40, but none thereafter until 1743. The lack of success of the *Medway* may have had some bearing on the reduced number of contracts Bird received after 1743, taking on just one a year until 1746.[18] The other large scale builders for the Navy Board were on the East Coast, Barnard at Ipswich and Blade at Hull. Both these builders had a more even rate of contracting with the Navy Board. Barnard took on a 60, the *Eagle*, and five of the 50s, as well as some of the small ships.[19] Blade specialised in the 44s, but also built a 50 as well as smaller vessels. The only other large scale builder was Okill of Liverpool, who took on seven of the contracts for the 44s as well as a single 24. The remained of the vessels were spread among builders and the policy of risk spreading by the Navy Board appears to have paid off as only contract was not completed.[20]

This paper has tried to establish the role of the private ship builders in the expansion of British sea power during the war of 1739-48. A group of about forty ship builders

17 Admiral Warren contracted Mr Hallowell of Boston to build a 24 in September 1746. The ship, *Boston* was launched in May 1748 and broken up in 1752. Commodore Charles Knowles, commanding the captured French fortress of Louisbourg, agreed with a New Hampshire builder, Mr, Messerwe, to build a 44. It was launched in May 1749 as the *America* but never completed. See, D. Baugh (1977: 232-3), Knowles to the Admiralty, 27th June 1747.

18 Two of Bird's later contracts were fulfilled not by building but by the purchase of completed ships, the *Ferret* and the *Nightingale* in 1743 and 1746 respectively.

19 The history of Barnard can be found in J.E. Barnard (1997).

20 This was the *Solebay,* which was started by a builder, Veale, but completed at Plymouth. For this reason the contract has not been included in the figures above.

accounted for over 60 per cent of the expansion of the Royal Navy during the war and they provided almost all the vessels that deepened the operational capability of the fleet beyond the line of battle. As such, they are an element of sea power that has been unjustifiably neglected. The role of the private ship builder was to continue growing to the point that, by 1815, the Royal Navy was largely a privately built naval force. A great deal more needs to be done to understand how this relatively small early group of contractors conducted their businesses in support of growing British naval power, how they managed the switch to periods of peace and how they continued to develop their relationships with the Navy Board and Admiralty as war and peace continued to interchange until 1815. The war of 1739-48 demonstrated that the private ship builders could take on contracts successfully and be relied upon to deliver the ships needed. Driven by a pragmatic need to expand the fleet rapidly during 1739-40, in the expectation of easy victory, the experience of the war as whole provided reliable precedents for more measured expansions during the Seven Years War, the American War and finally the French Revolutionary and Napoleonic Wars.

Appendix: Contracts with Private Shipbuilders, 1739-1748

Site of Yard	*Contractor*	*1739*	*1740*	*1741*	*1742*	*1743*	*1744*	*1745*	*1746*	*1747*	*1748*	*Total*
Thames	Alexander, Thames							1				1
	Allen, Rotherhithe									1		1
	Bird, Rotherhithe	4	5			2	1	1	1			14
	Brondson, Deptford	1				2						3
	Bronsdon & Wells, Rotherhithe		1									1
	Buxton, Deptford	1		1		1	3					6
	Buxton, Rotherhithe	1	1					1				3
	Carter, Limehouse		2			1			1			4
	Carter, Rotherhithe	1										1
	Graves, Limehouse				1							1
	Greaves, Limehouse					1						1
	Greville & Whetstone, Limehouse						1					1
	Greville, Limehouse			1								1
	Perry, Blackwall	1	1	2		3						7
	Quallet, Rotherhithe	1	2			1		1				5
	Sedger, Chatham							1				1
	Snelgrove, Limehouse	1	3	1		1	1					7
	Sparrow, Rotherhithe								1	1		2

	Taylor, Rotherhithe	1	2	1		1			2			7
	Taylor and Randle,											
	Rotherhithe							1				1
	Wells, Deptford								1			1
	West, Deptford and Wapping	1	3	1	1	1		1				8
	Whetstone, Rotherhithe					1						1
												78
South	Carter, Southhampton						1					1
Coast	Chitty&Quallett, Chichester						1					1
	Chitty, Chichester							1	1	1		3
	Darly, Gosport						1	1				2
	Durrell, Poole							1				1
	Ewer, Burlesdon			1	1	1	1	1				5
	Ewer, Cowes							1				1
	Heather, Burleston						1	1				2
	Janvrin, Beaulieu							1	1	1		3
	Janvrin, Burleston						2					2
	Rowcliffe, Southampton		1	1	1	1	1					5
	Smith, Burlesdon								1			1
	Stow, Shoreham		1									1
	Stow&Bartlett, Shoreham							2				2
	Wyatt&Major, Beaulieu							1				1
	Wyatt, Beaulieu						1					1
												32
East	Barnard, Harwich				2		2		1			5
Coast	Barnard, Ipswich	1	1	1			1					4
	Blades, Hull	1	1	1	1	1	2	2				9
	Pearson, Lynn	1										1
	Reed, Hull				1	1	1					3
												22
NW	Golightly, Liverpool					2		1				3
Coast	Gorill, Liverpool						1	1				2
	Hinks, Chester						1					1
	Okill, Liverpool		3	1		1	1	1	1			8
												14
North	Hallowell, Boston NE								1			1
America	Messerwe, Portsmouth, NH								1			1
		16	27	12	8	22	24	22	13	4	0	**148**

Modern Works Cited

BARNARD, J.E. (1997). *Building Britain's Wooden Walls: The Barnard Dynasty, c.1697-1851*, Oswestry: Nelson.

BAUGH, D. (1977). *Naval Administration in the Age of Walpole, 1715-1750,* London: Navy Records Society.

BAUGH, D. (1965). *British Naval Administration in the Age of Walpole,* Princeton.

GARDINER, R. (1992). *The First Frigates: Nine-pounder and Twelve-pounder Frigates, 1748*-1815, London: Conway.

HARDING, R. (2010). *The Emergence of Britain's Global Naval Supremacy. The war o f1739*-1748, Rochester: Boydel & Brewer.

KNIGHT, R. (1985). "The Building and Maintenance of the British Fleet during the Anglo-French Wars, 1688-1815" in M. ACERRA, J. MERINO and J. MEYER, (eds.), *Les Marines de Guerre Européennes XVII-XVIII^e Siècles,* Paris, pp. 35-50.

KNIGHT, R. (2003). "Devil Bolts and Deception? Wartime Naval Shipbuilding in Private Shipyards, 1739-1815", in *Journal of Maritime Research* nº 5:1 (April), pp. 34-51.

KNIGHT, R. (2011). "Changing the Agenda: The "new" Naval History of the British Sailing Navy", in *Mariner's Mirror,* nº 97: 1, pp. 225-242.

KNIGHT, R. and M. WILCOX (2010), *Sustaining the Fleet, 1793-1815: War, the British Navy and the Contractor State,* Woodbridge.

LAVERY, B. (1983). *The Ship of the Line, Volume One: The Development of the Battlefleet, 1650-1850,* London: Conway.

LYON, D. (1993). *The Sailing Navy List; All the Ships of the Royal Navy, built, purchased or captured,* London: Conway.

MORRISS, R. (1983). *The Royal Dockyards during the Revolutionary and Napoleonic Wars,* Leicester.

POOLE, B. (1944). *Navy Board Contracts, 1660-1832: Contract Administration under the Navy Board,* London.

WINFIELD, R. (1997). *The Fifty Gun Ship*, London: Chatham.

War, Government and the Market: The Direction of the Debate on the British Contractor State, c. 1740-1815

9

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'All modern wars', remarked the Secretary of State for War Henry Dundas to Prime Minister William Pitt in 1794, *'are a contention of purse'*.[1] The work of John Brewer and Patrick O'Brien has established that British success in the wars of the 'long' eighteenth century was in part a product of an effective taxation system, and the ability of the British state to reach more deeply into the pockets of its citizens than its rivals.[2] Until recently, however, relatively little research has been conducted into how, and how effectively, the money thus raised was translated into armies on the march and fleets at sea, nor have the economic implications been explored. In particular, there are large gaps in our knowledge of the systems of contracting, through which the state mobilised the resources of the private sector to achieve strategic ends. And yet, despite the relative paucity of research into government contracting, it has been apparent for a long time that contractors were important to the eighteenth-century British war effort. In the 1960s and 1970s the work of Bernard Pool on contracting for naval stores by the Navy Board and Norman Baker's research into the provisioning of British forces in North America during the war of 1776-83 highlighted the importance of contracting in these areas.[3] Around the same time, David Syrett's work on *Shipping and the American War* drew attention to the importance of merchant ships in moving

1 Quoted in Ehrman, J. (1996: 53).

2 Brewer, J. (1988); O'Brien, P.K. (1988: 1-32); O'Brien, P.K. (2009: 167-200); O'Brien, P.K. (2011: 408-446); Beckett, J.V. and Turner, M. (1990: 377-403).

3 Pool, B. (1966); Baker, N. (1971).

military supplies.[4] However, work on government and contracting went rather quiet thereafter, and these and other, more recent, works all suffered from the same flaw: they were all skewed towards a study of the state and its functions. The reason for this seems to have been primarily a practical one. Whereas the archives of numerous government bodies concerned with contracting occupy many hundreds of metres of shelf space in the major national archives, survival of business papers had been much patchier, and those scanty collections which survive are dispersed around a variety of repositories scattered the length and breadth of Britain. Inevitably, where historians interested in the interface between government and the private sector have found gaps in the records of the latter, they have tended to fall back on the state archives, and thus the workings of government departments.[5] In addition, it is probable that the debates over the fiscal-military state and the process of state formation have tended to direct attention towards the state and away from its contractors, whilst many economic historians have largely ignored the processes by which the state spent the money it raised in taxes, or treated them as irrelevant to the process of economic development.[6]

Our purpose here is to provide an overview of the state of research, and to set out of questions which we think should form part of the framework for future research. To some of these we provide tentative answers. They fall under three broad headings. Firstly, we survey the scope and dimensions of the British Contractor State, with the aim of giving some idea of the extent of its reach and complexity of its functions, primarily military but also civilian. Secondly, we look at how the Contractor State functioned, how contracts were made and administered and how the system coped with the growing scale and scope of warfare in the eighteenth century. Finally, we turn to the economic implications of the Contractor State, and conclude by posing some theoretical questions.

4 Syrett, D. (1970).

5 This difficulty is acknowledged in Gordon Bannerman's innovative study of army contracts in the mid-eighteenth century; see Bannerman, G.E. (2008).

6 Rodger, N.A.M. (2010: 1-18).

1. The Scope and Dimensions of the British Contractor State

Fundamentally, the respective roles of government and contractors changed little between 1740 and 1815. Government bodies made and administered contracts, processed and assembled goods supplied on contract and despatched them to where they were needed, and then paid the bills. Contractors, in return, provided food, clothing and munitions to the armed services, cared for some of the sick, fed and clothed prisoners of war, built an array of fortifications, hospitals, canals and camps, provided the timber, hemp, canvas and many other items needed to operate sailing warships, and indeed built an increasing number of those ships. They extended the reach of the state by providing goods and services which it could or did not, sometimes in places where it had little or no influence. This remained as true in 1815 as it had been seven decades previously. Nevertheless, there were some significant changes. In some areas contractors gained an enhanced role, and in others their role sharply diminished. This section outlines these developments and outlines four key criteria which determined whether a particular function was contracted out or not.

One area in which contracting expanded is shipbuilding. The Royal Navy had long relied to some extent on commercial shipbuilders, but during the eighteenth century the demand for ships expanded more quickly in wartime than the ability of the Royal Dockyards to supply them, and the balance was provided by private shipyards.

Table 1: Warship Tonnage Built in Royal Dockyards and Merchant Yards in Wartime, 1739-1815

	Number ships built	*Tonnage*	*Percentage*
1739-48			
Royal Dockyards	44	40,082	38.3
Merchant Yards	140	77,591	61.7
Total	184	125,673	
Seven Years War			
Royal Dockyards	37	48,568	49.5
Merchant Yards	74	49,628	50.5
Total	111	98,196	
American Revolutionary War			
Royal Dockyards	51	48,650	30.6
Merchant Yards	161	109,931	69.3
Total	212	158,581	

French Revolutionary War			
Royal Dockyards	35	40,996	33.8
Merchant Yards	152	80,270	66.0
Total	187	121,266	
Napoleonic War			
Royal Dockyards	82	94,960	28.1
Merchant Yards	433	242,619	71.8
Total	515	337,579	

Data from Lyon, D. (1993).

Note: Percentages may not sum due to rounding.

As *Table 1* shows, there was no consistent expansion of either the proportion or the total amount of shipping tonnage provided by merchant shipyards. In the Seven Years War the amount of tonnage built privately was smaller than in the wars of 1739-48, and in the French Revolutionary war both were smaller than in the American War. Both figures, however, reached a peak during the Napoleonic War, with private yards contributing a remarkable 242,619 tons —the equivalent of about a tenth of British merchant shipping tonnage in 1815— which equates to 71.8 per cent of all warship tonnage built.[7] More important than any quantitative increase in tonnage built was a qualitative shift: whereas early in the eighteenth century private builders had supplied mainly small ships, in the second half of the eighteenth century they supplied an increasing number of 74-gun ships of the line. Between 1688 and 1755 they built 29 per cent of such tonnage, whereas the equivalent figure was 52 per cent between 1756 and 1815.[8] The geographical range of yards which benefited from these contracts also changed. The Admiralty preferred to employ shipyards based around the Thames and in south-eastern England, where quality could be more easily monitored. However, these areas could not meet the demand for tonnage, and contract building extended along the south coast, up the east coast to Great Yarmouth, Hull and Newcastle, and the west coast as far as Liverpool.[9]

If the role of private shipbuilders expanded, that of some suppliers shrank. A key component of the sailing warship was the pulley block, of which a first-rate warship

7 Morris, R. (1983: 28-30).

8 Knight, R.J.B. (1985: 35-50).

9 Morriss, R. (2011: 134).

needed approximately 1,700 for her standing and running rigging, and her gun tackles. Throughout the eighteenth century blocks were provided on contract, but in 1802 the Admiralty accepted a proposal by Marc Brunel, father of the famed engineer Isambard Kingdom Brunel, to install a block-making machine of his own invention at Portsmouth Dockyard, to be driven from one of the existing Newcomen-type steam engines. The machines were built and installed by engineering firm Henry Maudslay & Co, and represent arguably the first machine tool assembly line in the world. The following year the contract for providing the blocks was cancelled, and from then on all blocks were manufactured in the Royal Dockyards. Brunel-Maudslay block-making machines were subsequently installed in other yards, and the last one continued in service until 1983.[10] Care of the sick and wounded was also brought under more direct state control. Whereas in the seventeenth and early eighteenth centuries their care was entrusted to private contractors, the opening of Haslar Hospital, at Portsmouth, in 1753 heralded a change of approach.[11] Although some patients overseas continued to be cared for by contractors, direct state provision was increasingly the model followed in Britain thereafter.

Both of these examples —to which we return below— beg the question of what factors influenced whether a particular task was contracted out or provided directly. In some cases this was obvious: the state did not own the means of primary production and there was never any serious suggestion that it should, so raw materials were always purchased from contractors. With finished goods and services, however, matters were less clear-cut, and the decision whether to provide or contract seems to have been influenced by four main factors.

The first of these was permanence. One key advantage of contracting was that it allowed facilities to be expanded rapidly at the beginning of a war and then decommissioned and dismantled at its end, at little cost to the state and without the need to retain a large establishment in peacetime. No permanent organisation for victualling armies overseas existed until the introduction of the Commissariat in 1759, and even after that it shrank back to a minimal establishment at the close of every war.[12] The navy, for its part, always maintained the victualling yards at Deptford, Portsmouth and Plymouth, together with smaller establishments at Chatham and Dover and a

10 Rodger, N.A.M. (2004: 476).

11 Crimmin, P. (2009: 99-102).

12 Morriss, R. (2011: Chapter 9).

few key supply bases overseas, most notably Gibraltar.[13] These expanded in wartime, but victualling outside Europe was largely provided by 'sea provisions' contractors who were engaged to provide the full scale of provisions, often in places where victualling facilities were minimal or non-existent in peacetime. These included the East Indies, the east coast of North America, the Cape of Good Hope between its capture in 1795 and the Peace of Amiens, and again after it was retaken in 1806, various places in the Caribbean and all ports in Britain other than the five main bases.[14] The state did provide facilities when necessary, usually when a suitable contractor could not be found, such as for the Leeward Islands in 1794,[15] but in general the cost and effort were passed on to the contractor.

Capital requirements were another key determinant. As outlined above, private shipyards provided a large and growing proportion of the Royal Navy's warship tonnage. Some shipbuilders invested heavily in new facilities to enable them to bid for warship building contracts. Among them was William Gibson, an established shipbuilder in Hull who in 1805 opened a new yard on the east side of the River Hull, from which he built several vessels for the navy, the largest being the 32-gun frigate *Hyperion*, which he launched in 1807.[16] Gibson's site was on the River Hull, and its narrowness restricted him to building frigates and smaller craft but, as we have seen, an increasing proportion of tonnage of ships of the line was provided by contractors during and after the Seven Years War. However, all first —and second— rate warships were built in large docks which only existed in the Royal Dockyards. This was principally because they required facilities on a scale beyond the means of most private shipbuilders, and which it was not in the interests of any potential contractor to provide since they would have had no peacetime function, three-decked ships of the line being far larger than any contemporary merchant ship.[17] Similarly, it is very unlikely that the existing contractor for blocks could have commanded the capital to invest in a facility as advanced as the Brunel-Maudslay machinery which, as we have seen, allowed block-making to be taken back in-house.

13 See Knight, R. and Wilcox, M. (2010: Chapter 2).

14 See Knight and Wilcox (2010: Chapter 7).

15 Knight and Wilcox (2010: 133).

16 Credland, A.G. (2006: 12-4).

17 TNA, ADM 3/72, Admiralty Minutes, 21 July 1764 records the order for all Master Shipwrights in Royal Dockyards to build 74 gun ships on slips rather than in docks: ships larger than this continued to be built in docks.

Finally, and probably most importantly, the breadth and depth of the market was a key influence. Britain had the crucial advantage of well developed and integrated markets in a wide variety of goods and a large mercantile community.[18] A large merchant shipping sector provided manpower and transports for the navy, whilst the strength of the shipbuilding industry allowed the Admiralty to rely on private builders to augment the output of the Royal Dockyards.[19] Manufacturing was also comparatively advanced, including in sectors of military importance such as iron founding and iron working.[20] All of this ensured an ample supply of potential contractors. Whereas the Spanish government found itself unable to trust the market in victualling the Minorca expedition of 1781-2 and resorted to direct provision, the British government was rarely placed in this position.[21] There were instances where suitable contractors could not be found and direct provision had to be instigated, such as the example of the Leeward Islands mentioned above, but these were few and far between. The only exception is in copper reclamation, where only a few potential contractors existed and the task was taken back, into the newly-built copper mill in Portsmouth Dockyard, the view evidently being taken that a private monopoly was likely to cost the state more than simply employing someone to do it.[22]

The depth of the markets also enabled government bodies to exert greater control over their contractors. During the French Revolutionary and Napoleonic Wars the *Victualling Board* took a tough line on attempts by contractors to supply substandard goods. Charles Flower, an influential merchant later to become Lord Mayor of London, had a large consignment of beef returned to him in 1794, after inspection had revealed that some of it did not meet the required standard. In 1810 a baker named Thomas Hearn, who had been an important contractor for *'bisket'* (hard bread) at Portsmouth, was detected supplying bread that was *'old, smelly and maggoty'*, and told that unless he could produce a good reason for his conduct he would in future be regarded as *'a person wholly unfit to hold any further Contract with this department'*. Evidently he could not explain himself to the Board's satisfaction, for he held no further contracts and

18 Ville, S.P. (2004: 295-331); Dennison, T. and Simpson, J. (2010:164-86); Hancock, D. (1995: 238-9).

19 Harding, R. (1999: 129-42); Morriss, R. (2011: 77).

20 Allen, R.C. (2009: Chapter 9); Broadberry, S., Fremdling, R. and Solar, P. (2010: 156-9).

21 Torres Sanchez, R. (2011: 313-38).

22 Wilkin, F.S. (2006: 52-3).

disappears from the record.[23] Nor were attempts by contractors to form cartels and force up their prices tolerated. The Board and its Agents Victualler would refuse to buy from anyone they suspected of trying to fix prices.[24]

The final element in this consideration of the scope and dimensions of the Contractor State is its civilian side. Given that the military accounted for the greater part of the spending of all European states in this period, it is unsurprising that work on the fiscal-military state has tended to emphasise military expenditure, although Erica Charters has drawn attention to its *'caring'* side.[25] Certainly, the Contractor State encompassed some civilian functions, mainly of a punitive nature. Some prisons were operated by contractors, whilst in 1786 William Richards was the first of several engaged to transport convicts to the penal colonies of Australia.[26] A slightly different example —not strictly contracting, but very much an analogous process— is the way in which many highways were turned over to private Turnpike Trusts in the eighteenth century. These replaced an inadequate and uneven system of road maintenance by local parishes, and contributed to significant improvements in the speed, comfort and productivity of overland transport.[27] Clearly, given that the armed forces constituted the largest spending departments, the bulk of contracting, in Britain as elsewhere, was directed towards military ends, but the civilian side should not be overlooked entirely.

2. The Functioning of the Contractor State

If the relationship between government and its contractors remained fundamentally little changed between 1740 and 1815, the same cannot be said of how the Contractor State functioned, for there were developments in a number of key areas. The ways in which contracts were made and administered were altered and tightened up, albeit more quickly in some areas than others. Warfare became larger in scale and wider in scope, throwing up challenges for both government and private sector to deal with.

23 UK National Archives (TNA), ADM 111/197, *Victualling Board Minutes*, 10 Nov 1810; Knight and Wilcox (2010: 85-6, 100).

24 TNA, ADM 111/194, *Victualling Board Minutes*, 12 Mar 1810.

25 Charters, E. (2009: 921-41).

26 Knight, R.J.B. (1989: 125-6).

27 Bagwell, P. (1974: 38-41); Barker T. and Gerhold (1993: 22-4); J. Mokyr (2009: 205-9).

Finally, various reforms, especially on the government side of the equation, made the Contractor State generally more efficient as time went on.

In the eighteenth century, many held a negative view of contractors, best summarised by a pamphlet published in 1771, often attributed to Dr Samuel Johnson, which held that:

> *These [contractors] are the men, who, without virtue, labour, or hazard, are growing rich as their country is impoverished; they rejoice when obstinacy or ambition adds another year to slaughter and devastation; and laugh from their desks at bravery and science, while they are adding figure to figure, and cipher to cipher, hoping for a new contract from a new armament and computing the profits of a siege or tempest.*

Contractors, on this view, earned their contracts through patronage and influence, and used them to enrich themselves at the expense of the taxpayer, who paid inflated prices for a poor service, and the soldiers and seamen who were forced to subsist on poor quality and underweight provisions. These views have been echoed by many historians since.[28] More recently, however, they have been undermined by various studies of contracting which have suggested that contracts were not simply a licence to print money at public expense.[29] Nevertheless, there clearly were improvements in the mechanisms for making and administering contracts.

In the first place, there was a gradual move from a 'relational' model of contracting, whereby contractors were chosen from a small pool of known individuals, to a more 'transactional' approach, based upon open tendering.[30] However, this process was uneven and varied across government bodies, and generally it proceeded more quickly in the Navy than elsewhere. In the 1770s, the Treasury, which made contracts for supplies to the army, did not use competitive tendering, and *'Treasury contracts were regarded as part of the patronage available to government'*.[31] Conversely, the Navy Board was using a tendering process for stores in the late 1730s, although at that stage it seems to have been used as something of a 'first round' of the contractual process, and

28 [Anon] (1771). Political tract attributed to Samuel Johnson, *Thoughts on the late transactions respecting Falkland's Island*, 43-44.

29 See for example Namier, L. (1960: 46-53).

30 See for example Bannerman (2008); Baker (1971); Knight and Wilcox (2010).

31 Sturgess, G.L. (2011: 41-58).

was followed by a period of bargaining with the successful bidders.[32] By the late eighteenth century all navy contracts were awarded by competitive tender, and contracts for provisioning the army overseas followed suit in 1794, when responsibility for making and administering them was turned over to the Victualling Board. However, although the logic of the shift from a relational to a transactional approach to contracting was to keep down prices and prevent abuses, in which it was broadly successful, the improvement should not be exaggerated. Much as the Treasury made contracts without an open tendering process, Norman Baker's study of military contracts during the American War suggests that they were generally performed conscientiously and that contractors did not make vastly excessive profits.[33] The same seems to apply to contracts for military supply during the Seven Years War.[34] Conversely, those awarded contracts on the basis of competitive tendering did not always fulfil them adequately. The squadron at Cork suffered considerable 'inconvenience' in 1794 owing to unspecified failures by the victualling contractors, Messrs Brown and MacCarthy.[35] More seriously still, several of the major 'sea provisions' contractors seem to have become overstretched and vulnerable to a difficult economic climate around 1810. Four of the Victualling Board's largest contractors, James Brymer, Thomas Pinkerton, John Grant and Belcher Byles, went bankrupt between 1810 and 1812.[36] In all cases the Board was able to find alternative contractors and no operational difficulties resulted, but these cases do attest to the fact that, just as relational contracting did not always entail corruption and incompetence, competitive tendering did not guarantee that the contractor would not fail.

We know far less about how contracts were administered once they had been made. This obviously applies principally to the standing contracts which were extensively used by the Treasury for army provisioning, and by the Victualling Board for the supply of 'sea provisions' and some goods to the major bases. They were also used extensively by the Navy Board. One drawback with any standing contract for goods supplied at a fixed price was that, if the market fell, the contractor could earn well above the going rate for his supplies until the contract was amended or cancelled. The Navy Board

32 Baker, N. (1971: 216).

33 Pool, B. (1966: 98-9).

34 Baker, N. (1971: 241-54).

35 Bannerman, G.E. (2008: 139-150).

36 TNA, ADM 111/130, *Victualling Board Minutes*, 14 Mar 1794.

does not always seem to have watched the market closely, and sometimes paid excessive prices as a result.[37] We do not know how the Victualling Board dealt with the same problem for much of the century, but by 1793 it was certainly watching the market closely, and numerous contracts were cancelled, or their prices revised downwards. One example is the East Indies contract, which the Victualling Board took the opportunity of the Peace of Amiens to break and renegotiate at a much lower rate.[38] On the other hand, prices of many goods tended to rise rapidly in wartime, which could expose contractors to a loss. The Victualling Board was generally willing to grant price advances to struggling contractors. Initially these were open-ended, or for a period of time negotiated between Board and contractor, but from around 1809 they were granted only for six months at a time, although they could be renewed if necessary.[39]

This links into the question of contract enforcement, which seems to have been tightened up as time went on. Certainly, during the later stages of the Napoleonic War the Victualling Board took a tough line with contractors who failed to fulfil their obligations. When John Jacob wrote to the Board in 1810 to request release from a contract for flour that he had been unable to comply with, they replied that he had already been granted *'every reasonable indulgence'*, that the matter was now in the hands of their solicitor, and that *'the Law must take its full course against him'.* On the other hand, where a contractor had failed for reasons beyond his control, penalties were sometimes reduced or forgiven.[40] Similarly, in its contracts for ships, the Navy Board declined to penalise contractors to the fullest extent if they had good reason for delivering vessels late. Joseph Graham, a Harwich shipwright, delivered the 74-gun *Conqueror* fully three years and three months late, yet when he was paid in February 1802 he was penalised only £200, instead of the £3,000 set out in the contract, because his men had been *'employed on a great number of ships sent into Harwich'.* On the other hand, in 1806 Topsham shipbuilder Obadiah Ayles evidently had no excuse for delivering the brig *Adder* six months late, and was charged the full £300 penalty.[41] So, during the

37 Knight and Wilcox (2010: 148-53).

38 Pool, B. (1966: 102-8).

39 Wilcox, M.H. (2011: 39-40).

40 *Commission for Revising and Digesting the Civil Affairs of His Majesty's Navy: Tenth Report: Victualling Office* (1806), 34.

41 TNA, ADM 111/194, Victualling Board Minutes, 10, 24 Mar 1810.

Napoleonic Wars such evidence as we have suggests that contracts were enforced rigorously, but with discretion. Whether this is true for earlier periods remains to be seen.

Throughout the eighteenth century, the scale of warfare increased. Armies and navies became larger, equipment became more sophisticated, and wars were conducted on a widening geographical range. In terms of manpower, employment in the Royal Navy peaked at 54,861 during the wars of 1739-48, 88,990 during the Seven Years War, 91,915 during the American War, and 147,087 in 1813.[42] Moreover, warfare was conducted further from home. Early eighteenth-century wars were primarily fought in Europe, with limited deployments to North America, but the wars of 1739-48 saw sustained deployments both in America and the East Indies, which became larger in subsequent wars.[43] These posed major logistical difficulties, perhaps especially so in the East Indies because of the vast extent of the station, challenging climate, complex political situation and sheer distance from Britain. By and large the Contractor State seems to have dealt with these challenges fairly effectively, although sometimes slowly. Victualling and stores were perennial problems for ships operating in the East Indies, but shortages do not seem to have hampered operations greatly in the Seven Years War. The American Revolutionary War, however, exposed serious problems with the system of direct buying of provisions by Agents Victualler attached to squadrons. Supplies to Sir Edward Hughes's squadron, which were by then supposed to be provided by the East India Company, were unreliable, and there were credible allegations of fraud perpetrated by both Hughes and his Agent Victualler.[44] Victualling of ships and crown troops on the station was turned over to contract in 1790, to good effect. The contractor, Basil Cochrane, had become a very wealthy man by the time he returned to England in 1806, but he had at least established a system in working order, which continued until the end of the war.[45]

In terms of technical development, both government bodies and contractors were responsible for improvements. Carronades, short, slide-mounted guns, were developed by the Carron Iron Company in the 1770s and adopted by the Navy during the

42 TNA, ADM 49/102, An Account of Ships Built in Merchants Yards since the 1st January 1801; Warlow, B. (2010: 88).

43 Starkey, D.J. (1990: 25-42); Rodger, N.A.M. (2004: Appendix VI).

44 Lenman, B.P. (1998: 154-8).

45 See Wilcox, F.S. (2011: 33-7).

American War: by the end of the war these guns successfully exploited their potential as a devastating close-range weapon. Perhaps the most significant improvement to the eighteenth-century fighting ship, however, was the use of copper sheathing below the waterline, to protect the hull from fouling and shipworm. The potential of copper sheathing was recognised in the 1760s, but its adoption was hindered by the problem of electrolysis, conducted by sea water between the copper plates and the iron bolts of the hull. The Navy Board conducted various experiments with different methods of fastening the copper plates, with layers of tarred paper intended to make a seal around the heads of the iron bolts. This method failed, but not before some large warships foundered returning from America late in 1782, falling to pieces in a storm, while detailed surveys of other warships showed that the iron bolts were wasted and weak. After much debate, the technicians in the works owned by Thomas Williams, the main copper contractor, developed bolts made of zinc and copper, hardened by mechanical means. In August 1786 the Royal Dockyards started in the long task of rebolting the entire British fleet, using the bolts supplied, of course, by Thomas Williams.[46]

In terms of contract administration and technical development, while there were significant developments between 1740 and 1815, did the Contractor State as a whole become more efficient? Certainly, we can point to various areas where there were definite improvements. These seem to have been concentrated towards the end of the century, and on the government side, where the shock of defeat in the American War provoked major reforms. War, as ever, proved *'a forcing-house for change'*.[47] The use of agents to purchase goods on commission was one such area. In 1776 a London corn-factor, Christopher Atkinson, was engaged to buy malt for the *Victualling Board*. Having successfully fulfilled this engagement his remit was widened to include a monopoly on purchases of wheat, groats, flour, pease and oatmeal. However, it subsequently emerged that he had defrauded the Board to the tune of many thousands of pounds, by misrepresenting the prices he had paid and inflating his expenses in delivering the goods. He was imprisoned and lost his Parliamentary seat.[48] In the wake of this debacle MPs were barred from holding government contracts, and perhaps more importantly

46 Wilcox, F.S. (2011:39, 45); Northcote Parkinson, C. (1954: 338-9).

47 Knight, R.J.B. (1973: 299-310).

48 Bannerman, G.E. (2008: 3).

the Victualling Board tightened up its procedures for checking up on commission buyers. Their use in the wars of 1793-1815 was sparing, their activities were closely monitored, and none was allowed a monopoly, with the exception of Peter and William Mellish, who purchased all of the cattle and pigs bought in the London markets for slaughter at Deptford yard.[49]

War also forced major changes in the means by which government paid its bills. One of the key advantages that the Navy possessed was that its subsidiary Boards issued their own bills, which allowed them to run a system of deficit-based finance, and therefore spend far more than they were officially granted by the annual Parliamentary vote. As they were issued, bills were added to a 'course', in effect a queue for payment. When the course became too long, bills (which were transferable instruments and therefore could be sold on by the original holder) began to sell at a heavy discount and contractors duly inflated their prices to cover the loss. At that point money was usually voted over and above the annual estimate to pay off part of the debt.[50] This system worked well until the financial crisis of 1797 threatened it with collapse, at which point government bills were limited by statute to payment no more than 90 days after issue, effectively abolishing the course.[51] The resulting system worked well for the remainder of the war. In the subsequent years, government accounting procedures were also tightened up, although not before the backlog of unchecked accounts had reached crisis point in some areas. Delays in passing accounts and reaching final settlements with longstanding contractors were thereby reduced. Finally, war forced institutional reform. Taking victualling as an example again, a minute in 1802 remarked that hitherto it had always been the practice, when reductions in staff were being made, to discharge those who had served the shortest time and therefore had 'least claim' on the public purse. Now, however, the least able men were to be discharged and the best retained, regardless of time served.[52] Further up the hierarchy, the Board itself was reorganised and effectively purged of its older and less efficient members in 1809.[53] Similar changes were taking place in many places across the state machine, undoubtedly with beneficial effects.[54]

49 Syrett, D. (1996: 129-42).

50 Knight and Wilcox (2010: Chapter 6).

51 See Wilkinson, C. (2004: Chapter 3); Baugh, D. (1965: 475-8).

52 Binney, J.E.D. (1958: 141-2).

53 TNA, ADM 111/164, *Victualling Board Minutes*, 15 Oct 1802.

54 Knight, Roger (2008: 143-5).

Whether there were concomitant changes on the contractors' side is a more difficult question to answer since it is less easy to point to specific reforms as examples. Nevertheless, this certainly was a period of major commercial developments. The mercantile community grew more quickly than the population as a whole throughout the eighteenth century, no doubt widening the pool of contractors.[55] Mercantile innovations in banking and finance facilitated (and were encouraged by) the payment of contractors in bills.[56] Networks of trade and commerce widened and became increasingly integrated, making it possible for a London-based contractor to employ a local agent to manage his provisioning contract in the West Indies, using provisions largely purchased from Ireland and America.[57] Finally, and most famously, some of the clusters of innovations that characterised the early 'Industrial Revolution' were of direct benefit to the state and the armed forces, but they were developed and perfected by industrialists in search of profit. More research is needed to link these clearly relevant developments into the changing Contractor State.

3. The Implications of the Contractor State

Contracting encompassed a wide range of functions, and involved the purchase of very large quantities of a wide variety of goods. Undoubtedly, this had significant economic implications, although they must have varied over time and sector. As yet, however, they are all poorly understood.

In wartime the government was the largest single buyer of various goods ranging from armaments to sailcloth to foodstuffs. For instance, the Victualling Board purchased 10.7 per cent of all cattle which passed through London's principal market, at Smithfield, between 1793 and 1808.[58] Clearly, this begs the question of what impact government buying had on the markets. In the short term there were definite, albeit localised influences. Cornish merchant, banker and smuggler Zephaniah Job entered the grain trade in the 1780s. Initially, his main business there was exporting oats from Cornwall, mainly to north-western England and sometimes London. Shortly before the outbreak of war in 1793, however, he and his partner John Grigg instead began importing

55 Harling, P. and Mandler, P. (1993: 44-70).

56 Mathias, P. (1957: 30-45); Hay, D. and Rogers, N. (1997: 20-1).

57 Quinn, S. (2004: 147-74); Daunton, M. (1995: 246-9).

58 Knight and Wilcox (2010: 42-3).

wheat from East Anglia, to fulfil contracts that he had taken out for supplies to Plymouth victualling yard. He supplied about a fifth of the wheat bought by the yard that year. Moreover, he acted in concert with others: his accounts show that one large consignment of grain went towards fulfilment of four contracts held by Job and Grigg, and Devon-based merchants Giles Welsford and William Arlot. The ship in which some of these cargoes were moved was probably owned by another prominent Plymouth contractor, John Collier. He also continued to export oats, some of which went to a Hampshire corn factor and contractor, Samuel Wheeler.[59] Thus did existing networks of trade adapt themselves to the demands of the state. Nevertheless, there were short-term stresses and strains. The arrival of the Western Squadron and its 25,000 men at Plymouth in early 1795, at a time of harvest failure and dearth, exacerbated existing shortages, pushed up bread prices and contributed to a wave of rioting in the county.[60] Concerns that the same might happen again were aired after further harvest failures, although at present it is impossible to ascertain the extent to which military provisioning contributed to the shortages and consequent riots in the county in 1801 and 1812.[61]

It seems clear enough, then, that government buying could have significant, if localised, short-term effects on the provisions trades, but it is unlikely to have had any significant long-term consequences. The impact of government buying on smaller and more concentrated trades may well have been different, however, and in the case of industry government contracts could encourage innovation and hand a head-start to particular firms, the effects of which would be felt down their supply chains.[62] Since the early sixteenth century the gunfounders in the Weald of Kent and Sussex, an industry based on local supplies of ironstone, charcoal, had been supplying cast hollow cannon to the Ordnance department and the East India Company, made by the three piece moulding technique. By the Seven Years War iron masters in the Midlands, Wales and Scotland were using coke in their blast furnaces, and led by the ironmaster John Wilkinson, were boring cannon 'out of solid', and were producing in greater

59 Macdonald, J. (2010: Appendix G).

60 Wilcox, M.H. (2010: 1-14); Knight and Wilcox (2010: 183-8).

61 Duffy, Michael (1992: 187).

62 Devon Record Office (DRO), 152M/C1812/OG, Copy letter from Reverend John Jago to Henry Addington, 5 Nov 1812.

quantities so that costs were coming down. Nevertheless, in the 1760s the Weald ironmasters still retained contracts from the Ordnance Department, in part because difficulties were being experienced in developing the new methods of manufacture. The Carron Company in Scotland, for instance, had so many difficulties with the new technology that in 1773 it lost all government contracts, and, further, the company suffered the ignominy of the Board of Ordnance ordering all Carron guns in use off the King's ships. Contracts formerly held by Carron were again distributed among the gunfounders of Kent and Sussex. However, the technological problems were solved, allowing guns to be produced to a much higher standard of precision and at a lower cost. Finally, in 1775 the Ordnance Board made a decision to accept only iron cannon 'bored out of solid'. This decision spelt complete ruin for a three hundred and fifty year old industry. By 1787 the gun foundries in the Weald were either in ruins or standing unused, and by 1814 the Carron Iron Works was the largest ironworking firm in Europe.[63] Such was the power of government buying in a specialised industry in which there were few other customers, except, perhaps, foreign governments.

This leads directly onto the question of whether there was any *deliberate* attempt on the part of government to manage the markets. Christian Buchet, in an influential study of victualling in the Seven Years War, argues that the Victualling Board pursued a policy of favouring the largest firms, in an attempt to promote concentration in the provisions trades.[64] However, we have found no evidence to suggest that this was the case between 1793 and 1815. The Victualling Board certainly watched the markets closely, but it concerned itself solely with obtaining the supplies the fleet needed for the best price it could negotiate, and there is nothing to suggest that the Commissioners sought to do any more than this. Nevertheless, the provisions markets, with countless small producers supplying mainly raw materials, were a very different proposition from, for instance, the armaments industry. The impact of government buying on more concentrated, technologically advanced and capital-intensive businesses is likely to have been rather different, and possibly deliberately so. Again, further research is needed.

Implicit in all of this are two final, overarching considerations. Firstly, so far we have discussed the implications of contracting in terms of the impact of government

63 Trebilcock, C. (1969: 474-90).

64 Tomlinson, H.C. (1976: 383-400); Rodger, N.A.M. (2004: 377); Daunton (1995: 214-5).

buying on the markets and on industry, but the reverse needs to be considered. As noted above, it seems that on the whole the British government benefited from well-developed markets and an abundance of potential contractors in most fields. In Britain the government did not tolerate, and did not have to tolerate, arrangements such as the monopoly that controlled naval and military victualling in France at mid-century. As well as economic development, contributory factors to this situation are likely to have been the government's creditworthiness, which gave contractors the confidence to commit large sums to supplying its forces, and the ideological climate of the late eighteenth century.

All of this serves to paint a picture of a state in which a creditworthy government, which could secure current borrowing at low interest rates against future revenues raised by an effective and modern taxation regime, mobilised the resources of a vigorous and expansive private sector, operating in well developed and integrated markets, to supply its navies and armies, as well as some limited civilian functions. Britain, on this reading, was not just an outstandingly successful fiscal-military state, but also an extremely effective Contractor State. Yet this does pose one final, conceptual problem: just what was, or what is, a Contractor State? Where and when did it originate, and when did it end, if indeed it ever did? Armies all over Europe were provisioned at least partly by contract from medieval times, whilst British warships were usually hired from private merchants before the emergence of the Navy proper in the sixteenth century, and were usually victualled by contractors until 1683.[65] Contracting by government continues to this day, on a very large scale and in fields far more diverse than in the eighteenth century, as the periodic controversies in Britain over private involvement in the formerly nationalised public transport system bear witness.[66] Unlike the fiscal-military state, the 'Contractor State' cannot be tied so firmly to the process of state formation in the seventeenth century. No process has yet been traced by which it was transformed into something else, unlike the fiscal-military state, which Harling and Mandler argue convincingly evolved in Britain into the *laissez-faire* state of the high Victorian period.[67] If any state, at any time, can be labelled a 'Contractor State', then does the term actually have any meaning?

65 Buchet, C. (1999: 337-8); see also Rodger, N.A.M. (2010: 14-5).

66 Pritchard, J. (2009: 178-9); see also J. Felix's work in this volume.

67 Rodger, N.A.M. (1997: 136-7, 234, 372-5); Parker, G. (1988: 64).

It should be obvious from the foregoing that we feel that much remains to be done, both theoretically and empirically. We have advanced a few tentative answers to some of the questions we have posed, but most are exactly that —tentative—, and in urgent need of further research before we can answer them fully. No doubt the same situation exists in other countries. Once some of this has been resolved, then more enlightening international comparisons can be made. Much remains to be done, and we await developments with interest.

Bibliography

ALLEN, R.C. (2009). *The British Industrial Revolution in Global Perspective*, Cambridge: Cambridge University Press.

BAGWELL, P. (1974). *The Transport Revolution from 1770*, London: B.T. Batsford.

BAKER, N. (1971). *Government and Contractors: The British Treasury and War Supplies,* London: Athlone Press.

BANNERMAN, G.E. (2008). *Merchants and the Military in Eighteenth-Century Britain*, London: Pickering and Chatto.

BARKER, T. and GERHOLD, D. (1993). *The Rise and Rise of Road Transport, 1700-1990*, Cambridge: Cambridge University Press.

BAUGH, D. (1965). *British Naval Administration in the Age of Walpole*, Princeton NJ: Princeton University Press.

BECKETT, J.V. and TURNER, M. (1990). "Taxation and Economic Growth in Eighteenth-Century England", in *Economic History Review*, 43, pp. 377-403.

BINNEY, J.E.D. (1958). *British Public Finance and Administration 1774-1792*, Oxford: Clarendon Press.

BREWER, J. (1988). *The Sinews of Power: War, Money and the English State, 1688-1783*, Cambridge MA: Harvard University Press.

BROADBERRY, S. and O'ROURKE, K.H. (eds.) (2010). *The Cambridge History of Modern Europe,* vol. I (1700-1870), Cambridge: Cambridge University Press.

BROADBERRY, S., FREMDLING, R. and SOLAR, P. (2010). "Industry" in BROADBERRY and O'ROURKE eds. *The Cambridge History of Modern Europe*, pp. 164-86.

BUCHET, C. (1999). *Marine, economie et societe: un exemple d'interaction l'avitaillement de la Royal Navy Durant la Guerre de Sept Ans*, Paris: Champion.

CHARTERS, E. (2009). "The Caring Fiscal-Military State during the Seven Years War, 1756-1763", in *Historical Journal*, 52, pp. 921-41.

CREDLAND, A.G. (2006). *The Gibsons: a shipbuilding family of the 18th and 19th centuries*, Hull: East Yorkshire Local History Society.

CRIMMIN, P. (2009). "The Sick and Hurt Board: Fit for Purpose?" in BOYD HANCOCK, D. and ARCHER, S. (eds.). *Health and Medicine at Sea, 1700-1800*, Woodbridge: Boydell and Brewer, pp. 99-102.

DAUNTON, M. (1995). *Progress and Poverty: an Economic and Social History of Britain 1700-1850*, Oxford: Oxford University Press.

DAVIS, R. (1962). *The Rise of the English Shipping Industry*, Newton Abbot, Devon: David and Charles.

DENNISON, T. and SIMPSON, J. (2010). "Agriculture" in BROADBERRY, S. and O'ROURKE, K.H. (eds.), *The Cambridge History of Modern Europe*, 164-86.

DUFFY, M. (1992). "Devon and the Strategy of the French Wars, 1689-1815" in DUFFY, M., FISHER, S, GREENHILL, B., STARKEY, D.J. and YOUINGS, J, (eds.), *The New Maritime History of Devon,* vol.1, *From Early Times to the late Eighteenth Century*, London, Conway Maritime Press.

EHRMAN, J. (1996). *The Younger Pitt* vol. III: *The Consuming Struggle*, Palo Alto: Stanford University Press.

FLOUD, R. and JOHNSON, P. (2004). *The Cambridge History of Modern Britain*: vol.1 *Industrialisation, 1700-1860*, Cambridge: Cambridge University Press.

HARDING, R. (1999). *Seapower and Naval Warfare, 1650-1830*, London: UCL Press.

HANCOCK, D. (1995). *Citizens of the World: London Merchants and the Integration of the British Atlantic Community, 1735-1785*, Cambridge: Cambridge University Press.

HARLING, P. and MANDLER, P. (1993). "From "Fiscal-Military" State to Laissez-faire State, 1760-1850", in *Journal of British Studies*, 32, pp. 44-70.

HAY, D. and ROGERS, N. (1997). *Eighteenth-Century English Society*, Oxford: OPUS.

KNIGHT, R.J.B. (1973). "The introduction of Copper Sheathing into the Royal Navy, 1779-1786", in *Mariner's Mirror*, 59, pp. 299-310.

KNIGHT, R.J.B. (1985). "The Building and Maintenance of the British Fleet during the Anglo-French Wars 1688-1815" in ACERRA M., MERINO, J. and MEYER, J. (eds.), *Les Marine des Guerres Europeennes XVII-XVIII Siecles*, Paris: PUPS, pp. 35-50.

KNIGHT, R.J.B. (1989). "The First Fleet: its state and preparation" in HARDY, J. and FROST, A. (eds.), *Studies from Terra Australis to Australia*, Canberra: Australian Academy of the Humanities, 121-136, pp. 256-262.

KNIGHT, R.J.B. (2008). "Politics and Trust in Victualling the Navy, 1793-1815", in *Mariner's Mirror*, 94, 133-149.

KNIGHT, R. and WILCOX, M. (2010). *Sustaining the Fleet, 1793-1815: War, the British Navy and the Contractor State,* Woodbridge: Boydell and Brewer.

LENMAN, B. (1998). "Colonial Wars and Imperial Instability", in MARSHALL, P.J., *The Oxford History of the British Empire: The Eighteenth Century*, Oxford: Oxford University Press.

LYON, D. (1993). *The Sailing Navy List: All the Ships of the Royal Navy – Built, Purchased and Captured – 1688-1860*, London: Conway Maritime Press.

MACDONALD, J. (2010). *The British Navy's Victualling Board, 1793-1815: Management Competence and Incompetence*, Woodbridge: Boydell and Brewer.

MATHIAS, P. (1957). "The Social Structure in the Eighteenth Century: A Calculation by Joseph Massie", in *Economic History Review*, X, pp. 30-45.

MOKYR, J. (2009). *The Enlightened Economy: an Economic and Social History of Britain, 1700-1850*, New Haven CT: Yale University Press.

MORRISS, R. (1983). *The Royal Dockyards during the Revolutionary and Napoleonic Wars,* Leicester: Leicester University Press.

MORRISS, R. (2011). *The Foundations of British Maritime Ascendancy: Resources, Logistics and the State, 1755-1815*, Cambridge: Cambridge University Press.

NAMIER, L. (1960). *The Structure of Politics at the Accession of George III*, London: MacMillan.

NORTHCOTE PARKINSON, C. (1954). *War in the Eastern Seas 1793-1815*. London: George Allen & Unwin.

O'BRIEN, P.K. (1988). "The Political Economy of British Taxation, 1660-1815", in *Economic History Review* 41, pp. 1-32.

O'BRIEN, P.K. (2009). "The Triumph and Denouement of the British Fiscal State: Taxation for the Wars against Revolutionary and Napoleonic France" in STORRS (2009), *Fiscal-Military State*, pp. 167-200.

O'BRIEN, P.K. (2011). "The nature and evolution of an exceptional fiscal state and its possible significance for precocious commercialization and industrialization of the British Economy from Cromwell to Napoleon", in *Economic History Review*, 64, pp. 408-446.

PARKER, G. (1988). *The Military Revolution: Military Innovation and the Rise of the West, 1500-1800*, Cambridge: Cambridge University Press.

POOL, B. (1966). *Navy Board Contracts, 1660-1832: Contract Administration under the Navy Board*, London: Longmans.

PRITCHARD, J. (1987). *Louis XV's Navy 1748-1762: a study of Organization and Administration*, Montreal: McGill-Queen's University Press.

QUINN, S. (2004). "Money, Finance and Capital Markets" in FLOUD and JOHNSON (eds.), *Economic History of Modern Britain*, pp. 147-74.

RODGER, N.A.M. (1997). *The Safeguard of the Sea: A Naval History of Britain, 660-1649*, London: Allen Lane, Penguin.

RODGER, N.A.M. (2004). *The Command of the Ocean: A Naval History of Britain, 1649-1815*, London, Allen Lane, Penguin.

RODGER, N.A.M. (2010). "War as an Economic Activity in the 'Long' Eighteenth Century", in *International Journal of Maritime History*, XXII, pp. 1-18

STARKEY, D.J. (1990). "War and the Market for Seafarers in Britain, 1736-1792" in FISCHER, L.R. and NORDVIK, H.W. (eds.), *Shipping and Trade 1750-1790: Essays in International Maritime Economic History*, Pontefract, Yorkshire: Lofthouse.

STORRS, C. (ed.) (2009). *The Fiscal-Military State in Eighteenth-Century Europe: Essays in Honour of P.G.M. Dickson* Farnham: Ashgate Publishing.

STURGESS, G.L. (2011). "Commissions and Concessions: a Brief History of Contracting for Complexity in the Public Sector" in CALDWELL, N. and HOWARD, M. (eds.), *Procuring Complex Performance: Studies of Innovation in Product-Service Management*, London: Routledge.

SYRETT, D. (1970). *Shipping and the American War 1775-83*, London: Athlone Press.

SYRETT, D. (1996). 'Christopher Atkinson and the Victualling Board, 1775-82', *Historical Journal*, LXIX, 129-42.

TOMLINSON, H.C. (1976). "Wealden Gunfounding: an analysis of its demise in the Eighteenth Century", in *Economic History Review*, 29, pp. 383-400.

TORRES SANCHEZ, R. (2011). "Monopoly or the free market: two ways of tackling the expenditure, the Expedition to Minorca (1781-1)" in CONWAY, S. and TORRES SANCHEZ, R. (eds.). *The Spending of States: Military expenditure during the long eighteenth century: patterns, organisation, and consequences, 1650-1815*, VDM Verlag Dr. Muller GmbH & Co, pp. 313-38.

TREBILCOCK, C. (1969). "'Spin-Off' in British Economic History: Armaments and Industry, 1760-1914", in *Economic History Review*, 22, pp. 474-90.

VILLE, S.P. (2004). "Transport", in FLOUD, R. and JOHNSON P., *Cambridge Economic History of Modern Britain*, 295-311.

WARLOW, B. (2010). *Ships of the Royal Navy: The Complete Record of all Fighting Ships of the Royal Navy*, Havertown PA: Casemate.

WILCOX, M. (2010). "Maritime Business in Eighteenth-Century Cornwall: Zephaniah Job of Polperro", in *Maritime Views*, 2, pp. 1-14.

WILCOX, M. (2011). "'This Great Complex Concern': Victualling the Royal Navy on the East Indies Station, 1780-1815", in *Mariner's Mirror*, 97, pp. 32-48.

WILKIN, F.S. (2006). "The Contribution of Portsmouth Royal Dockyard to the success of the Royal Navy in the Napoleonic War", in *Transactions of the Naval Dockyard Society*, 1, pp. 47-58.

WILKINSON, C. (2004). *The British Navy and the State in the Eighteenth Century*, Woodbridge: Boydell and Brewer.

Contracts and the Role of the State. Portuguese military provisions supply system in the early nineteenth century[1]

10

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The maintenance of armies required a management structure that ensured the provision of supplies, guaranteed their quality, and ensured price controls. Nonetheless, the study of this, and other aspects of the role of the state in the early nineteenth century has, by and large, been missing so far, and not just for Portugal.

Despite some recent contributions related to the issue such as Moreira and Eloranta (2011), Moreira (2007 and 2011) and Santos (2010), there is still a major lack of studies regarding the Portuguese state's military provision of food to the army in the early nineteeth century. This research is aimed at providing a better understanding of the workings of the early nineteenth century Portuguese state, especially its evolution toward a more modern state, by focusing on military rations and transports to the military in particular. We argue here that the revolutionary and Napoleonic conflicts were a pivotal period in the transformation of the Portuguese state and its later nineteenth century development.

The lack of cereals in Portugal during the Napoleonic wars has been investigated by several scholars such as Moreira (2006), Justino (1998), Fonseca (1996), Pedreira (1994), Alexandre (1993), Novais (1986), Arruda (1980), Silbert (1966). Borges de Macedo (1962). These studies, however, have not provided much information about the subsequent evolution of the military supply system in the nineteenth century or the structures that were needed to sustain adequate military supplies during the initial conflict period. What rations did the Portuguese state need to supply the Portuguese

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army in the Peninsular War and how was that achieved? What were the objectives of this supply network and how did these initial considerations affect its evolution during the years of war and perhaps beyond? We will first discuss some theoretical considerations in the study of the fiscal state and the context of the war, then the administrative structure of the supply system and the specific organizations that made it work, to be followed by investigation of the logistics involved, and we will end with some conclusions and discussion of future challenges.

1. Challenges in the Study of Nineteenth Century States: The Case of Portugal during the Revolutionary and Napoleonic Wars

The modern period, beginning more or less with the French Revolution in 1789, was marked by pivotal changes in the power relations between nations, the financing of wars, and the actual practices of warfare. Whereas in the pre-nineteenth century world military spending was typically the dominant item for state budgets, even thrusting the most eager rulers and nations toward default, the industrialized nations of the late nineteenth century developed more efficient budgeting systems to cope with the threat and execution of wars. However, there is a distinct lack of research that has looked at state structures, especially from the fiscal point of view, in the earlier part of this century.

Richard Bonney has focused on the evolution of fiscal regimes mainly for the early modern states, up until the end of the Revolutionary and Napoleonic Wars. He has emphasized that the states' revenue and tax collection systems, the backbone of any militarily successful nation state, have evolved over time. During the Middle Ages, the European fiscal systems were relatively backward and autarchic, whereas the modern fiscal state —embodying more complex fiscal and political structures— was able to maximize resources for possible conflicts (Bonney, 1999; Ferguson, 2003). Niall Ferguson has maintained that wars have shaped all the most relevant institutions of modern economic life. The invention of public debt instruments has gone hand-in-hand with more democratic forms of government and military supremacy, which is sometimes referred to as the British model. Such regimes have also been the most efficient economically, and military expenditures may have been the principal cause of fiscal innovation for most of history (Ferguson, 2001). Nonetheless, the emergence of these modern states, which for most of Europe happened during the course of the nineteenth century, has not been adequately studied yet.

Moreover, recent scholarship, as presented by for example David Bell (2007), certainly suggests that the *revolutionary* wars and the ensuing Napoleonic conflicts should be put in the same category as the world wars, i.e. global conflicts. And, as Kevin O'Rourke (2006) has suggested, Great Britain was the least affected of the belligerents, whereas France and the United States suffered more. One could conjecture that this period of conflict, which brought actual occupation to some European states and at least severe societal/economic consequences, had long-lasting impacts for the development of states in Europe —and elsewhere—. Patrick O'Brien has suggested that the wars meant taxes for the private sector and competition with the government for funds and labour, as well as trade disruptions, on the negative side of the balance sheet; as for positive impacts, the wars meant more domestic production, new market opportunities —possibly—, access to an expanded network of credit, and the opportunity to surpass competing economies (O'Brien, 1989, 382).

We have argued in Moreira and Eloranta (2011) that the Revolutionary and Napoleonic Wars were truly total wars based on the methods chosen by the belligerents. Due to the fact that these wars had an impact on the trade relations of all nations, many countries scrambled to find new outlets and sources for their trade. In this situation the weaker and/or smaller states, like Portugal —which was both weak and small—, increased, albeit temporarily, due to new market opportunities amidst rising profits. In sum, war, even total war, was not necessarily bad for everyone economically —there were opportunities to be exploited due to the heightened demand for commodities and war materiel—. However, given the existing findings on such wars, it is highly likely that such advantages were short-lived. These impacts also affected the development of state structures in the nineteenth century.

There are at least two other tools with which to approach this question that come from New Institutional Economics (NIE): *path dependence* and *contracts*. According to Douglass C. North (1990), revolutions or wars can lead to changes in formal institutions, while the actual —informal— behavior of individuals typically changes more slowly. If fact, there is a possibility of a lock-in, called path dependence, which means that due to a historical occurrence a country can get locked in to either a "good" or "bad" institutional path (see David, 2001). O'Brien (1988, 1989 and 1996) has addressed the long-term development path of Great Britain in his many contributions and noted the possibility of a lock-in to inferior institutions by France. Contracts are another important area in NIE research currently, although mostly in the domain of legal scholars. Contracts are crucial in order to understand the formalization of the

institutional relationships in a society, as well as to analyze the interaction between formal and informal institutions and their enforcement. Typically NIE scholars like Lee Alston have focused on the role of contracts in securing agricultural property rights (see e.g. Alston, 2009; Alston et al., 2006) rather than the use of contracts by the state (for an exception in the US case, see Sylla et al., 1987). While we cannot analyze Portuguese state contracts for the nineteenth century in this article, it remains an important goal for future scholarship.

During these conflicts weak states like Portugal and the United States gained new international market opportunities in the short run between the alliances. Nonetheless, the domestic dynamics of the supply of the military during these global wars has not been studied adequately before, which has certain implications for Portugal. First, how was the supply system organized before and during the war and what implications did it have in the long run? Second, does the war period represent the beginning of an institutional path for the Portuguese state in the nineteenth century? While we cannot answer these questions conclusively before analysing the rest of the nineteenth century, we can, however, offer some preliminary findings on how the military supply system functioned.

2. The Administrative Structure of Provisions Supply for the Army

The *Junta da Administração dos Provimentos das Munições de Boca*[2] (Administrative Council of Provisions Supply) was established by the *Alvará* (Charter) of the 1 July 1762, in which it was linked to the Royal Treasury. It was divided into four administrative sections: i) the Court and Province of *Estremadura*; ii) *Alentejo* and *Algarve*; iii) *Beira* and *Partido do Porto*; and iv) *Minho* and *Trás-os-Montes*. This Council was constituted by an Inspector-General of the Royal Treasury, a Paymaster General, and bookkeepers

2 *Munições de boca* means "Provisions or supplies for an army are: gunpowder, lead, bullets, forage, wood, wheat, wine, bread and meat. *Munitions les vivres ou les provifions de bouche pour une armée en termes de guerre, la fondre, le plomb, les boulets, les fourrages, le bois,le bled, le vin, le pain, et la chair*" *Novo Diccionario das Línguas Portuguesas, e Franceza, com os termos latinos, tirados dos melhores authores e do vocabulário Portuguez e Latino do P. D, Rafael Bluteau, dos Diccionarios da Academis Franceza, Universal de Trevoux, de Furetriere, de Tachard, de Rilechet, de Danet, de Boyer, etc, com os nomes próprios das Nações e do Reino, das províncias, das cidade, das comarcas, dos rios do Mundo, etc*. Lisboa, Officina Patriacal de Francisco Luiz Ameno, 1764, tomo II, p. 460. This study focuses on the food supplies.

that ordered the supply and managing of the provision system. This Council was responsible for the election of labourers, foremen, and others necessary to the management and delivery of the provisions and had as main functions the power to determine the quantity and quality of the provision and the places where the general and private warehouses were to be established. In accordance with the receipts from the sellers, the Paymaster General approved the amount to be paid. These receipts were initialled by the bookkeepers and authorized by an order from the Inspector-General of the Royal Treasury. The *Vedores* (Superintendent) had the responsibility of preparing the financial statement every month, based on the information submitted by the foremen, and sending it to the Royal Treasury. This administrative structure was abolished by the Charter of the 29 August 1801, and it was replaced by the *Junta da Direcção Geral dos Provimentos de Boca* (Directorate-General Council of Provisions Supply).[3] It is quite telling that this change was made during the period of global conflict, intended to prepare Portugal better face the challenges of the war period.

The Directorate-General Council of Provisions Supply convened three times per week and on Saturdays. It was presided over by the Royal Treasury and it included the Paymaster General that served as a vice-president, two bookkeepers, three accredited dealers, an inspector (of the Council of the three States), a secretary, and two official archivists. This Council consisted of six provincial administrations: i) the Court and Province of Estremadura; ii) Alentejo; iii) *Beira*; iv) Oporto and the Province of *Minho*; v) Trás-os-Montes; and vi) *Algarve*. Its tasks included: a) directing and ordering the purchasing of the provisions; b) inspecting the condition, storage, distribution, and consumption of the goods; c) establishing a central depository in each province; and d) annually renewing the supplies. All expenses from the Council were paid through commercial papers issued by the Council itself and approved by a royal decree. These served as valid contracts, guaranteed by the state. In wartime, the Inspector-General of the Civil Divisions of the Army would not only indicate to the Council and its General Superintendents of the administrations where the army could obtain the supplies, but also procured orders from the Commander General for the establishment of temporary warehouses according to the position and movement of the troops. In each provincial administration, organized accounting and bookkeeping practices were

3 Cfr. *Arquivo Histórico Militar* (Military History Archive), Livro de Registo Antigos, 1625-1910. Volume II – Índice PT/AHM/FG/5/D4 Junta da Admnistração dos Provimentos de Munições de Boca, 1762-1801.

established to ascertain the existing quantities, prices, consumption, and asset and liability debts. For this purpose, a daily record was created where all the credits and debits for each kind of products and foreman were registered. From this record, the balance maps, and a revenue and expense book could be extracted.

The Council would annually present to the King the balance of the account of the expenses, application, and distribution of the supplies. The general and private account of the existing provisions in the provincial deposits, and the budget for next year's expenses according to the information of the Secretary of State for War would also be presented. The Decree Order of the 21 November abolished this Council in 1811 and also created the Army Commissariat. In the meantime, the Commission for the Settlement of Public Debt was created to deduct their expenditure. Nevertheless, the Directorate-General Council of Provisions Supply continued to operate after its official elimination, with the sole purpose of being in charge of the settlement of accounts and debts of their sphere of competence by the Charter of the 30 June 1811.[4] These changes in the administrative structure provide a good example of formal institutional change necessitated by the wartime realities, yet the informal impacts of the changes need to be looked at before rendering a judgement on the efficacy of this administrative evolution.

3. How Well Did It Work? A Case Study of the Portuguese Army

During the Napoleonic War, the annual products needed for the rations to supply the Portuguese Army on 1809, made up of 80,000 men and assorted militia,[5] comprised bread, wine, barley, meat, cod, rice, vegetables, olive oil, vinegar, bacon, and straw. The actual undertaking was quite complicated, given the problems brought on by the war. First part of the problem was to determine how much was needed and how to procure those supplies. The second pertained to the problem of actually delivering the supplies to the front.

4 Cfr. *Arquivo Histórico Militar* (Military History Archive), Livro de Registo Antigos, 1625-1910. Volume II – Índice PT/AHM/FG/5/D5 Junta da Direcção Geral dos Provimentos de Boca, 1801-1830.

5 Cfr. *Instituto dos Arquivos Nacionais Torre do Tombo* (Institute of National Archives of Torre do Tombo) box 83658.

An analysis of the budget compiled in October 1809 in order to supply the army during one year, as seen in *Table 1*, stressed the need for 58,560 thousand rations, split into bread rations (31,680 thousand, 91 per cent for annual consumption and 1 per cent for the market stocks); *Etapa*[6] (23,760 thousand of which 76 per cent were for the annual consumption by the troops and 24 per cent for the market stocks); forage 3,120 thousand (92 per cent for the annual consumption by the troops and 8 per cent for the market stocks).

Table 1: Estimated Number of Annual Rations Needed to Supply the Portuguese Army (80,000 Men and Militia; Budget, October 1809)

Use	***Bread***	***Etapa***	***Forage***
	Thousands of Rations		
Consumption of the troops	28,800	18,000	2,880
Market stocks	2,880	5,760	240
Total Number	31,680	23,760	3,120

Source: Created by authors based on sources in *Instituto dos Arquivos Nacionais Torre do Tombo* (Institute of National Archives of Torre do Tombo) box 83658.

In terms of the quantity of supplies needed for the bread rations, split between consumption and losses, one *alqueire* could provide 14 bread rations. Therefore, 37,714 *moios* of bread, equaling an annual consumption of 2,262,840 *alqueires*, were needed to provide the 31,680 thousand bread rations to the Portuguese army. The detailed quantities of products needed for the rations are compiled in *Table 2*.

6 *Etapa,* number of products that can be received in order to move to a point of supply. "Etapa, s.f. (of the fr. étape): distance that is covered without stopping // each stop or bivouac of the marching troops // daily ration of food and drink given to the soldiers during a campaign or a march." José Pedro Machado (1990). *Grande Dicionário da Língua Portuguesa*, Vol. IV. Lisboa, Ediclub, p. 637.

Table 2: Quantities of Products Needed for the Annual Rations (80,000 Men and Militia; Budget, October 1809)

	Bread	***Barley***	***Wine***	***Meat***	***Cod***	***Vegetables***
		Moios	Barrels	Nº of oxen	*Quintais*	*Moios*
Consumption	37,714	26,000	19,800	6,187	23,203	3,093
Losses	1,286	1,000	200	13	797	107
Total	39,000	27,000	20,000	6,200	24,000	3,200
	Straw	*Rice*	*Bacon*	*Olive oil*	*Vinegar*	
	Panos	*Quintais*	Barrels			
Consumption	260,000	11,601	2900	309	309	-
Losses	20,000	399	100	11	11	-
Total	280,000	12,000	3,000	320	320	-

Source: Created by authors based on sources in *Instituto dos Arquivos Nacionais Torre do Tombo* (Institute of National Archives of Torre do Tombo) box 83658.

The quality of the flour was an issue that concerned the Directorate-General Council of Provisions Supply, and it was already mentioned in the Charter of the 29 August 1801,[7]

> *XVI. And as my troops should not, under any circumstances, receive bread that was not weighed correctly or poorly made: in addition to the measures already implanted and that should be kept, each colonel shall everyday nominate an officer to examine the quality of the bread and its weight; the officer should, if some anomaly is found, either in weight or quality, report the case to the State Department of Warfare and to the Directorate-General Council, so that the said Council can immediately take action, investigating the veracity of this report and making amends, concerning either the quality of the flour or its manipulation, holding responsible and liable to punishment those that defraud My Royal Treasury and expelling promptly from the Administration those who take part in such abuse.*

7 *Collecção da legislação Portugueza desde a ultima compilação das ordenações:* Legislação de 1791 a 1801, Volume 4. Antonio Delgado da Silva, Typ. Maigrense, 1828, p. 740. Charter of the 29 of August, 1801, pp. 735-742.

In order to guarantee the annual amount of meat needed to feed the 80,000 plus men, 6,200 oxen (weighing 15 arrobas each) were needed. The allotted cost of the predicted rations to supply the army amounts to the impressive value of 4,438 *contos*[8], divided into 1,901 *contos* (31,680 thousand bread rations for 60 *réis*), 1,663 *contos* for *Etapa* (23,760 thousand for 70 *réis*) and 874 *contos* of forage (3,120 thousand iron fittings for 280 *réis*). The total expenses (4,438 *contos*) were the sum of the total of products needed for the rations' expenditure (4,084 *contos*) plus expenditure on transports, employees and others, namely the rise in the prices (354 *contos*).

Table 3: Annual Expenditures of Rations in Order to Supply the Portuguese Army (80,000 Men and Militia; Budget, October 1809)

Products	***Quantity***	***Unit***	***Price (réis)***	***Value***
Bread	2,340,000	*alqueire*[9]	720	1,684,800,000
Barley	1, 1,620,000	-	470	761,400,000
Wine	500,000	*almude*[10]	1,440	720,000,000
Meat	2,976,000[11]	*arrátel*	90	267,840,000
Cod	24,000	*quintal*	8,000	192,000,000
Vegetables	192,000	*alqueire*[12]	900	172,800,000
Straw	280,000	*pano*	350	98,000,000
Rice	10,666	*saca*	8,000	85,328,000
Bacon	12,000	*arroba*[13]	4,800	57,600,000
Olive oil	8,000	*almude*[14]	4,800	38,400,000
Vinegar	8,000	*almude*[15]	720	5,760,000
Total products needed for the rations				4,083,928,000
Transports, employees and other factors, including the rise in prices				353,672,000
Total Expenses				4,437,600,000

Source: Created by authors based on sources in *Instituto dos Arquivos Nacionais Torre do Tombo* (Institute of National Archives of Torre do Tombo) box 83658.

8 The term *contos* is frequently used throughout the text: it means *contos de réis*, where réis is a monetary unit: one *conto* corresponds to a million *réis*.

9 *Moios* equal to 60 *alqueires*.

10 *Barrel* equal to 25 *almudes*.

11 93,000 *arrobas, arroba* equal to 32 *arráteis*.

As seen in *Table 3*, six of the eleven products, bread (1,684 *contos*), barley (761 *contos*), wine (720 *contos*), meat (268 *contos*), cod (192 *contos*) and vegetables (173 *contos*), represent 86 per cent of all of the expenses incurred in order to supply the Portuguese Army that comprised 80,000 men and other militia in total, for one year alone, with stocks coming from several markets. While the Portuguese supply authorities were becoming more adept at estimating the needs of the troops, it would, however, be a stretch to call them particularly efficient.

How were these supplies taken to the front, once the specific needs were established? We can attest from the consular correspondence between Wellington and Stuart in 1811, for example, that the transportation network as it stood in Portugal and was used by the Army was lacking (Santos, 2010: 123),[16]

> *Dom M. de Forjaz cannot pronounce a more severe condemnation of the system on which the Government act, than in the declaration that they cannot get the 130 carts which they require. Are there no laws? Cannot a man be punished for refusing to supply his cart and oxen for the public service, upon receiving the order of the magistrate to supply them? Are the Government to execute the laws? Or are the laws made only to restrain the Government, and for the subjects to laugh at? The system of seeking popularity, to indulge the indolence of the people of Lisbon, will occasion the loss of the country.*

In a letter, George Head (Santos, 2010: 124), a British commissariat officer, referred to the lack of capacity or will by the Portuguese people to be collaborating with the Army, not allowing them to use the oxen carts in war: *'Não podem, senhor, não podem (They are not able, sir, they are not able, they would, alas, too frequently exclaim). "Coitadinhas, são*[17]

12 See note 24

13 *Quintal* equal to 4 *arroba.*

14 See note 25.

15 *Ibidem.*

16 *Wellington's Dispatches*, VII, 15 February 1811: 255. The Dispatches of Field Marshall, the Duke of Wellington: K. G. during his various campaigns in India, Denmark, Portugal, Spain, the Low Countries, and France. From 1799 to 1818, Volume 7, Arthur Wellesley Wellington (Duke of), John Gurwood, Ed. J. Murray, 1837.

17 In the original the verb used is "*estão*".

vaquinhas, senhor," ("Poor little creatures, sir, they are small cows"), and thus they would piteously entreat till the tears ran down their sunburnt cheeks'.[18]

The peasants claimed that the troops mistreated the animals, making them walk long and difficult distances, with the intention of abandoning the oxen, contributing to the scarceness of carts.[19] In fact, the animals that were not capable of pulling the carts were slaughtered on the spot, becoming fresh meat for the troops, what Wellington defined as *'convenient animal food... walking with you'*[20] (Santos, 2010: 117). The Charter of the 7 December 1811 aimed to improve this situation, to regulate the transport system in the realm and lead to the establishment of a map of the transport network for the King, based on inspections on several Portuguese geographical regions; namely, Estremadura, Beira Alta, Beira Baixa, Partido do Porto, Minho, Trás os Montes, Alentejo e Algarve. While this act created substantial amounts of new data for the government, it merely revealed the difficulties in supplying the troops adequately. Moreover, the use of all possible modes of transport to fulfill the army's need was at this point an irrefutable reality. All this was codified in the act called Portuguese Commissariat Regulation of Supplies and Transports for the Portuguese Army in 1812 (*Regulamento do Commisssariado de Viveres e Transportes para o Exército Português de 1812*).[21]

This detailed Portuguese Commissariat Regulation, namely with 20 articles divided into several subsections and an attachment with 24 models, replaced the previous regulations concerning transports (with only 12 articles) in the order of 1801, in which the Prince Regent D. João stated: *'that the regular and exact administration of everything that concerns the transport of artillery, military box, hospitals, supplies, big and small luggage of my armies, is one of the first foundations of military discipline'*.[22]

The General Intendent was nominated by the Regent Prince and was engaged,[23]

18 Head, George (1837). *A home tour through various parts of the United Kingdom. A continuation of the "Home tour through the manufacturing districts". Memoirs of an Assistant Commissary-General*. London: John Murray, p. 275.

19 Cfr. *Arquivo Histórico Militar* (Military History Archive), PT AHM/DIV/1/14/141/05.

20 Reid, William (1995: 106).

21 *Regulamento do Commissariado de Viveres e Transportes para o Exército Português de 1812,* Private Library.

22 *Collecção da legislação Portugueza desde a ultima compilação das ordenações:* Legislação de 1791 a 1801, Volume 4, Antonio Delgado da Silva, Typ. Maigrense, 1828, p. 685. Charter of the 15th of March (1801: 685-87).

23 *Ibidem.*

for the inspection and superior rule of all kinds of transport belonging to (...) [the] Royal Army (...), who will have full jurisdiction over all economical disposition, speed, accommodation of the artillery trains, military box, hospitals, supplies and luggage of all sorts: I determine likewise that this jurisdiction extends to all means of transport that the Transport Service's needs, be it land transport or water transport.

The control of the resources that was linked with transports in 1801 was also highlighted in article IV of the same Charter,[24]

To facilitate the knowledge of resources regarding transports in each place and to have a constant summary of these resources in the General Headquarters, the General Intendant for Transports will order the ministers and sub delegates, that I allow him to nominate, to form immediate lists of all varieties of beasts, carriages, farming vehicles and also all types of boats, with their names and addresses of their owners; and by these notions he will organize a map as methodically and clearly as possible.

The effort of developing the Portuguese Commissariat Regulation of Supplies and Transports for the Portuguese Army in 1812 can be seen as an attempt of framing their relations with their British counterpart, as attested by Wellesley's in a letter to W. Huskisson on 22 June 1809, which underlined,[25]

[the need of] the assistance of some persons belonging to the British Commissariat, to conduct the business under the Portuguese Government according to the rules established for that branch of their service; and to make rules to prevent the clashing of the officers of the Commissariat of two armies, acting in the same country, and for the mutual payment for supplies furnished by the one to the troops of the other nation.

The introductory text of the Portuguese Commissariat Regulation of Supplies and Transports for the Portuguese Army in 1812 also emphasized the British influence,[26]

24 *Ibidem*: 686.

25 In *The dispatches of Field Marshal the* Duke of Wellington, K. G. during his various campaigns in India, Denmark, Portugal, Spain, the Low Countries, and France: From 1799 to 1818, Volume 4, Arthur Wellesley Wellington. Ed. John Gurwood, p. 421.

26 *Regulamento do Commissariado de Viveres e Transportes para o Exército Português de 1812,* Private Library pp. 1-2.

Our having immediately told the Prince Regent, our Sir, the indispensable need of managing the provisions, Municiamento de Viveres, for the army according to the circumstances of the present war and confronting the same sir with the opinion of Marshall General Lord Wellington, Count of Vimeiro and the Army's Marshall, Guilherme Carr Beresford, Count of Trancoso, it is necessary to create a Commissariat for the Provisions, Comissariado de Viveres (…), that shall start their duty on the 1 January 1812, day on which cease the duties of the Directorate-General Council of Provisions Supply,[27] *in conformity of the other order issued on the same day (…) Governmental Palace, 21 November 1811 – with six signatures of the Kingdom's Governors.*

The fact that the Portuguese Commissariat Regulation of Supplies and Transports for the Portuguese Army in 1812 was in force at least until the second half of the nineteenth century also confirms its relevance. Moreover, quite curiously, at the end of the manuscript there were three addendums, indicating that the regulation was to be applied at least until 1846,[28]

The Decree from 26 November 1834, article 1 commands that the transport regulation for the service of the Portuguese and English Army on 7 December 1811 will only be enforced in the following cases. First, when there is a declared war with a foreign power. Second, when there is some rebellion in one of the Kingdom's provinces. Third, in a time of peace, no authority can withhold provisions or transports of any kind, excepting when there is imminent danger by the sea or land, then the embargo on transports and other necessary objects for the rescue will be allowed. (...) By Decree of the 6 February 1844, her Majesty the Queen that ordered that the regulation of transports of 7 December 1811 to be executed. And by another Decree of the 13 October 1846 ordered the same regulation of transports during the time of a rebellion in any province.

27 Curiously in this document is writen *Junta da Direcção Geral dos Provimentos de Munições boca* instead of *Junta da Direcção Geral dos Provimentos de Boca*.

28 *Regulamento do Commissariado de Viveres e Transportes para o Exército Português de 1812,* Private Library. The text is not paged as it appears after the index.

In the documents concerning the biannual inspections of the transport network from 31 December 1813 to 31 December 1815, a letter from 25 August 1814, referring to the comparison with the first semester of that year with the end of 1813, written by the General Intendent of the Políce João de Mattos e Vasconcelos Barbosa de Magalhães, to the Prince Regent D. João attested to the effort of recuperation of the transport network,[29]

> *You can see with satisfaction the progress and improvement of this part of the Kingdom resources, as is natural in consequence of the bigger confidence the recent happenings and the end of military activities have given to the country. The fact that there are less beast carts compared to the previous map should come from the army's use of such carts, as it was convenient for their owners to put the cattle to another use and the mounts as well, that were temporarily used for that purpose adding to the number of the existent ones in the respective column.*

The transport network was comprised of carts drawn by oxen (sometimes also cows) and other beasts of burden, including bigger beasts of burden (namely mules or horses) and smaller beasts of burden, yachts or boats outside of the shoal, as well as big boats and small boats.[30]

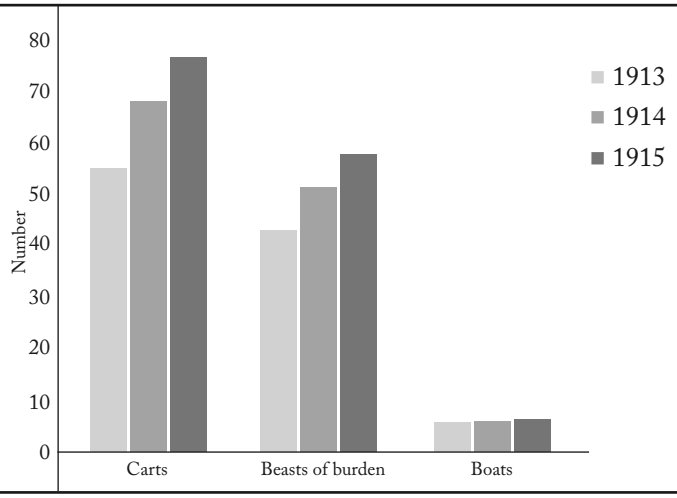
Breaking down the transports in carts, beasts of burden and boats (sum of yachts, boats outside of the shoal, big boats and small boats) one can determine that the cart

29 *Instituto dos Arquivos Nacionais Torre do Tombo* (Institute of National Archives of Torre do Tombo) box 83662.

30 The "burden" drawn by animals can be divided into three categories: 'a bigger burden, a smaller burden, and a cart burden. The first one was handled by a bigger "beast" - mule or horse - and contained ten arrobas; the second by a donkey or ass and included up to five arrobas, leaving two and a half arrobas for each load (the weight of four alqueires of bread, each alqueire weighing twenty arráteis, which made for eighty arráteis or three and a half arrobas); the third one was for the handcart or cart, should equal twenty arrobas. This is according to the declaration made by King D. Manuel in the Charter of Monção of 1512', in Viterbo, Joaquim de Santa Rosa de, O.F.M., 1744-1822, *Elucidário das palavras, termos e frases que em Portugal antigamente se usaram e que hoje regularmente se ignoram: obra indispensável para entender sem erro os documentos mais raros e preciosos que entre nós se conservam* / Publicado em Beneficio da Litheratura Portugueza. 2ª ed. revista, correcta e copiosamente addicionada de novos vocábulos, observações e notas críticas com um índice remissivo. Tomo I, A - F Lisboa: A. J. Fernandes Lopes, 1865, p. 163 BND L 14591V (http://purl.pt/13944).

was the main transport throughout the three year period, followed by the various animals. From the end of 1813 until the end of 1815, after the hostilities on Portuguese soil had ended, there was an annual growth trend for the transportation network. This trend was more pronounced from 1813 (104 thousand units) to 1814 (125 thousand units), i.e. 20.2 per cent growth, which included: 23.2 per cent increase in the number of carts (from 55,3 thousand to 68,2 thousand), 19.5 per cent growth in the use of beasts (42,9 thousand to 51,3 thousand), 3.3 per cent increase in the use of boats (from 5,3 thousand to 5,5 thousand) registered by the end of 1813. In a time of peace, by the end of 1815, the number of transport units reached 140,4 thousand (76,8 thousand carts, 57,7 thousand beasts and 5,8 thousand boats).

Figure 1: Portuguese Transport Network in the Entire Royal Kingdom According to the Inspections (1813-1815)



Source: Created by authors based on sources in *Instituto dos Arquivos Nacionais Torre do Tombo* (Institute of National Archives of Torre do Tombo) box 83662.

The analysis of the evolution of the transport network leads us to conclude that a most of the traffic undertaken with the oxen carts was concentrated in the Minho region, most of the beasts (mainly small ones) were used in Trás-os-Montes, and that it was in the Estremadura that the larger number of boats and bigger beasts were located. In general, the oxen cart was the main cart that was used and the smaller beasts were used more frequently than the bigger ones. In 1814, the transport network utilizing

bigger beasts included 3,429 beasts capable of carrying the weight of 7 to 8 arrobas. Interestingly, 10,013 cows were used in pulling the oxen carts as well. For example, in the Estremadura region there were 869 carts pulled by cows, and the bigger beasts (1,307 mules) were capable of carrying 7 to 8 arrobas. The total of oxen carts existent in the Province of Minho was 6,254, some of which were served by cows, and the number of bigger beasts in the same province was 564, combined with mules and horses, capable of carrying the aforementioned weight. By the end of 1815, there were 11,791 carts served by cows among the total number of oxen carts existent in the entire Kingdom, of which 1,125 belonged to the Estremadura region, 6,535 to Minho, 553 to Alentejo and Algarve, and 3,578 to Trás-os-Montes (see *Apendix*).

As the data shows, Portugal was able to expand its transportation capacity after the French invasion had ended. The civilian market started to recover from the ravages of the war period, although the quality of the food that was procured for the Army was repeatedly an issue in the supply chain. The eventual expansion in the transportation capacity focused mostly on animal-drawn carriages, since the animals could serve a dual purpose (transportation as well as food) and, perhaps most importantly, they could carry heavy items such as weaponry and ammunition. The formal changes in the military supply bureaucracy were an ongoing phenomenon during the war period.

4. Conclusion

The Revolutionary and Napoleonic Wars were massive conflicts, perhaps the first truly global wars the world had seen since the expansion and contraction of the classic ancient empires. The need to provide adequate supplies for the Portuguese Army was a key problem for the Portuguese State in the early nineteenth century. Given the financial and economic difficulties faced by their ally, Great Britain, they could not rely on imports from the British market. As we had discovered in an earlier article, Portugal did extensive trade with other trading partners like the United States during this period, despite the strained relations between the US and Great Britain. However, a key to overcoming this problem was to rely on domestic production and distribution. In order to do that, the Portuguese government needed to make their military supply administration more efficient and devise ways to better transport goods to the troops. In many ways, they failed in this endeavour —for example, the transportation network did not rebound from the destruction and difficulties of the war period until after the French invasion—.

Our data shows that Portugal was able to expand its transportation capacity only after the actual period of invasion had ended. The government was typically fairly ineffective in order to meet the needs of the Army, and often the food bought (or found) was of lesser quality. The late expansion in the transportation capacity primarily came in the form of animal-drawn carriages, since the animals could serve as transportation, particularly for heavy items like weapons, as well as food. The formal institutional changes in the military supply system did *not* make the state more efficient, possibly setting benchmark for future evolution of Portuguese state structures.

Furthermore, we wish to make two additional points: 1) According to C. Moreira (2011), the military expenditure during the Peninsular War was co-financed by the Portuguese and British states, a key to the interpretation of the Portuguese fiscal-military state mechanisms. This led to the creation of an administrative procedure assuring the effective management and maintenance of the help, in what was an extremely unstable period for Portugal. This also applies to the supply system, it was a joint venture and had far-reaching implications for the nineteenth century; 2) Moreira's (2011) results underline that from second trimester of 1809 until the end of 1811, the Portuguese Royal Treasury benefited from at least £3,000,000 granted by Great Britain, used for the up-keep of part of the Portuguese Army. This British financial support included an initial financial support based on the estimated value assigned to the expenses with the Portuguese Regiments aided by Great Britain from 25 March to 31 December 1809, 1,979 *contos* to support the expenses of 21,672 soldiers. The British aid was an important addition to the Portuguese military-fiscal experience during the wars.

However, there are several limitations to our study. This article does not delve into the actual contracts involved in the supply process; we are simply providing an overview of the overarching supply system and the institutional structures. A detailed study of the contractual forms and practices would be an endeavor of its own. Furthermore, while we would like to chart whether the war period cemented certain institutional practices and organizational preferences in the development of nineteenth century Portuguese state, this paper cannot do that. We need more data on the fiscal, economic, and political evolution of the state to do that. It would also be enlightening to perform some comparisons with other European, perhaps peripheral, states, to see if patterns emerge, if most European nations indeed tended to converge towards the so-called British Model and parliamentary rule. However, there are severe research gaps pertaining to the nineteenth century states that will hopefully be filled in future scholarship like such as the chapters presented in this volume.

Apendix 1: Portuguese Transport Network in the Entire Royal Kingdom on 31 December, 1813 (According to the Inspections; Unit: Number)

	Carts		***Beasts of burden***			***Boats***	
	Oxen[31]	*Beasts of burden*	*Bigger*	*Smaller*	*Yachts or boats outside of the shoal*	*Big boats*	*Small boats*
Estremadura	8,614	237	3,060	7,526	148	711	1,733
Beira Alta	2,856	-	1,013	2,626	-	-	-
Beira Baixa	1,077	-	1,205	2,544	85	70	84
Partido do Porto	13,221	3	923	1,440	33	455	845
Minho	25,868	-	1,645	2,507	32	98	462
Trás os Montes	1,056	-	655	2,738	-	-	-
Alentejo e Algarve	2,189	217	2,149	12,875	24	179	449
TOTAL	54,891	457	10,650	32,256	237	1,513	3,573

Source: Created by authors based on sources in *Instituto dos Arquivos Nacionais Torre do Tombo* (Institute of National Archives of Torre do Tombo) box 83658.

Apendix 2: Portuguese Transport Network in the Entire Royal Kingdom on 31 December 1814 (According to the Inspections; Unit: Number)

	Carts		***Beasts of burden***			***Boats***	
	Oxen[31]	*Beasts of burden*	*Bigger*	*Smaller*	*Yachts or boats outside of the shoal*	*Big boats*	*Small boats*
Estremadura	10,636	264	4,359	8,382	180	723	2,071
Beira Alta	5,004	-	1,484	2,762	-	-	-
Beira Baixa	1,711	-	1,098	2,794	-	113	66
Partido do Porto	15,250	16	998	1,533	38	500	642
Minho	27,631	-	1,992	3,271	33	105	452
Trás os Montes	4,335	-	988	3,447	-	-	-
Alentejo e Algarve	3,215	125	3,386	14,791	39	129	404
TOTAL	67,782	405	14,305	36,980	290	1,570	3,635

Source: Created by authors based on sources in *Instituto dos Arquivos Nacionais Torre do Tombo* (Institute of National Archives of Torre do Tombo) box 83662.

31 The total number of oxen is assumed to be 54,891, the sum of the disaggregated figures, instead of the 54,291 mentioned by the source.

Apendix 3: Portuguese Transport Network in the Entire Royal Kingdom on 31 December, 1815 (According to the Inspections; Unit: Number)

	Carts		***Beasts of burden***			***Boats***	
	Oxen[31]	*Beasts of burden*	*Bigger*	*Smaller*	*Yachts or boats outside of the shoal*	*Big boats*	*Small boats*
Estremadura	12,407	358	5,469	8,034	220	726	2,033
Beira Alta	5,634	-	1,897	3,250	-	-	-
Beira Baixa	2,307	-	1,405	2,894	-	23	48
Partido do Porto	17,998	16	2,202	1,423	38	381	1,051
Minho	28,172	-	1,973	3,233	17	36	572
Trás os Montes	5,647	-	1,211	3,963	-	-	-
Alentejo e Algarve	4,141	148	4,443	16,337	45	157	472
TOTAL	76,306	522	18,600	39,134	320	1,323	4,176

Source: Created by authors based on sources in *Instituto dos Arquivos Nacionais Torre do Tombo* (Institute of National Archives of Torre do Tombo) box 83662.

Bibliography

I. Primary Sources

Arquivo Histórico Militar (Military History Archive), Livro de Registo Antigos, 1625-1910. Volume II – Índice PT/AHM/FG/5/D4 Junta da Admnistração dos Provimentos de Munições de Boca, 1762-1801.

Arquivo Histórico Militar (Military History Archive), Livro de Registo Antigos, 1625-1910. Volume II – Índice PT/AHM/FG/5/D5 Junta da Direcção Geral dos Provimentos de Boca, 1801-1830.

Arquivo Histórico Militar (Military History Archive), PT AHM/DIV/1/14/141/05.

GURWOOD, J. (1837) *The Dispatches of Field Marshall, the Duke of Wellington: K. G. during his various campaigns in India, Denmark, Portugal, Spain, the Low Countries, and France. From 1799 to 1818,* Volume 4 and 7, Arthur Wellesley Wellington (Duke of), Ed. J. Murray

HEAD, G. (1837). *A home tour through various parts of the United Kingdom. Being a continuation of the Home tour through the manufacturing districts. Memoirs of an Assistant Commissary-General*, London: John Murray.

Instituto dos Arquivos Nacionais Torre do Tombo (Institute of National Archives of Torre do Tombo), Lisboa, Portugal, box 83658.

Instituto dos Arquivos Nacionais Torre do Tombo (Institute of National Archives of Torre do Tombo), Lisboa, Portugal, box 83662.

Novo Diccionario das Línguas Portuguesas, e Franceza, com os termos latinos, tirados dos melhores authores e do vocabulário Portuguez e Latino do P. D, Rafael Bluteau, dos Diccionarios da Academis Franceza, Universal de Trevoux, de Furetriere, de Tachard, de Rilechet, de Danet, de Boyer, etc, com os nomes próprios das Nações e do Reino, das províncias, das cidade, das comarcas, dos rios do Mundo, etc. Lisboa, Officina Patriacal de Francisco Luiz Ameno, 1764, tomo II.

Regulamento do Commissariado de Viveres e Transportes para o Exército Português de 1812, Private Library.

SILVA, A.D. da, *Collecção da legislação Portugueza desde a ultima compilação das ordenações:* Legislação de 1791 a 1801, Volume 4, Typ. Maigrense, 1828

VITERBO, Joaquim de Santa Rosa de, O.F.M., 1744-1822, *Elucidário das palavras, termos e frases que em Portugal antigamente se usaram e que hoje regularmente se ignoram: obra indispensável para entender sem erro os documentos mais raros e preciosos que entre*

nós se conservam / Publicado em Beneficio da Litheratura Portugueza. 2ª ed. revista, correcta e copiosamente addicionada de novos vocábulos, observações e notas críticas com um índice remissivo. Tomo I, A-F Lisboa: A. J. Fernandes Lopes, 1865, BND L 14591V (http://purl.pt/13944)

II. Secondary Source

ALEXANDRE, V. (1993). *Os sentidos do Império: Questão Nacional e Questão Colonial na crise do Antigo Regime Português*, Porto.

ALSTON, L. (2009). "[up and] Down on the Farm: Causes and Consequences of Tenure Mobility", in *Journal of Economic History* 69, 2, pp. 581-81.

ALSTON, L.; J. A. JERKINS, and T. NONNENMACHER (2006). "Who Should Govern Congress? The Salary Grab of 1873 and the Coalition of Reform" in *Journal of Economic History* 66, 2, pp. 511-11.

ARRUDA J. and JOBSON (1980). *O Brasil no comércio colonial,* São Paulo.

BELL, D. (2007). *The First Total War: Napoleon's Europe and the Birth of Warfare as We Know It*. New York: Houghton Mifflin Harcourt.

BONNEY, R. (ed., 1999). *The Rise of the Fiscal State in Europe c. 1200-1815*. Oxford: Oxford University Press.

BORGES DE MACEDO, J. (1962), *O Bloqueio Continental. Economia e Guerra Peninsular*, Lisboa.

DAVID, P. (2001). "Path Dependence, Its Crisis and the Quest for 'Historical Economics'," in GARROUSTE, P. and S. IOANNIDES (eds.), *Evolution and Path Dependence in Economic Ideas: Past and Present*. Cheltenham: Edward Elgar Publishing.

FERGUSON, N. (2001). *The Cash Nexus: Money and Power in the Modern World, 1700-2000*. New York: Basic Books.

FERGUSON, N. (2003). *Empire: The Rise and Demise of the British World Order and the Lessons for Global Power*. New York: Basic Books.

FONSECA, H.A. (1996). *O Alentejo no século XIX economia e atitudes económicas*, Lisboa: Imprensa Nacional - Casa Moeda.

JUSTINO, D. (1988). *A Formação do Espaço Económico Nacional, Portugal 1810-1931* Lisboa.

MACHADO, J.P (1990). *Grande Dicionário da Língua Portuguesa*, Vol. IV. Lisboa: Ediclub.

MOREIRA, Mª C. (2006). "La Importancia del Mercado Español en el Comercio Exterior Portugués (1796-1831)", *Hispania Nova. Revista de Historia Contemporánea* nº 6 (http://hispanianova.rediris.es), 1138-7319, pp. 167-191.

MOREIRA, Mª C. (2007). "Tracking signs of Portuguese fiscal military state 1762-1816," in TORRES SANCHEZ, R. (ed.) (2007), *War, State and Development, The Fiscal Military States during the Eighteenth Century*, Pamplona: Eunsa, pp. 251-275.

MOREIRA, Mª C. (2011). "Portuguese State Military Expenditure: British support of the Peninsular War efforts of Erário Régio (Royal Treasury) from 1809 to 1811" in CONWAY, S. and TORRES, R. (eds) (2011). *The spending of the States. Military expenditure during the long eighteenth century: patterns, organisation and consequences, 1650-1815*, VDM Verlang, Saarbrücken, pp.109-128.

MOREIRA, C. and J. ELORANTA (2011). "Importance of «weak» states during conflicts: Portuguese trade with the United States during the Revolutionary and Napoleonic wars", in *Revista de Historia Económica* 29: 393-423.

NORTH, D.C. (1990). *Institutions, Institutional Change, and Economic Performance*. Cambridge: Cambridge University Press.

NOVAIS, F. (1986). *Portugal e o Brasil na crise do antigo sistema colonial (1777-1808),* São Paulo.

O'BRIEN, P.K. (1988). "The Political Economy of British Taxation, 1660-1815", in *The Economic History Review* 41, 1, pp. 1-32.

O'BRIEN, P.K. (1989). "The Impact of the Revolutionary and Napoleonic Wars, 1793-1815, on the Long-Run Growth of the British Economy", in *Review (Fernand Braudel Center)* 12, 3, pp. 335-395.

O'BRIEN, P.K. (1996). "Path Dependency, or Why Britain Became and Industrialized and Urbanized Economy Long before France", in *The Economic History Review* 49, 2, pp. 213-249.

O'ROURKE, K. (2006). "The Worldwide Economic Impact of the French Revolutionary and Napoleonic Wars, 1793-1815", in *Journal of Global History* 1, 1, pp. 123-49.

PEDREIRA, J. (1994). *Estrutura industrial e mercado colonial Portugal e Brasil (1780-1830),* Linda-a-Velha.

REID, W. (1995). "Tracing the Biscuit: The British Commissariat in the Peninsular War." *Militaria. Revista de Cultura Militar*, 7, Madrid: Servicio de Publicaciones. UCM. Madrid.

SANTOS, J. M. (2010). *A Administração na Guerra Peninsular*, Coimbra: Caleidoscópio.

SILBERT, A. (1966). *Le Portugal Méditerranéen à la fin de L'Ancien Régime XVIII-Début de XIX siècle,* Paris.

SYLLA, R.; LEGLER, J.B. and WALLIS, J. (1987). "Banks and State Public Finance in the New Republic: The United States, 1790-1860", in *The Journal of Economic History,* 47, 2, pp. 391-403.

WILLIAM, R. (1995). "Tracing the Biscuit: The British Commissariat in the Peninsular War", *Militaria. Revista de Cultura Militar*, 7, Madrid: Servicio de Publicaciones, pp. 100-108.

A Global Perspective for the Comprehension of Fiscal State Formation across Eurasia from the Rise of Venice to the Opium War

11

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Historically, effective states have evolved along particular and path dependant trajectories and eventually emerged to govern successful economies that provided high standards of living with security for majorities of their citizens. Over the centuries that succeeded the rise of Venice (widely regarded in its golden age as a paradigm fiscal state), their primary concerns were never with economic growth. They did not routinely engage with Smithian programmes for the protection of property rights, the reduction of transaction costs, the coordination and extension of markets, the promotion of competition or the encouragement of innovation. Most devoted entirely limited resources directly or indirectly to investments for the creation of agricultural, industrial and social overhead and human capital. Instead they appear in historical records for this period to have been overwhelmingly preoccupied with their own survival and formation. Almost always and everywhere power prevailed over profit during several centuries of violence, perpetrated either to arrest or to initiate invasions across vulnerable frontiers, or to suppress threats to sovereignty over populations and resources from aristocratic magnates, warlords, nomads, urban oligarchies, ecclesiastical prelates, rebellious under-classes and other contenders for authority located within the porous borders of empires, realms, republics and cities. Dynastic continuity, territorial security and aggrandizement, effective monopoly over internal coercion and, above all, the integration of provinces, towns, regions and hinterlands, as well as diverse ethnic, religious and elite social groups into national or imperial polities – to be subjected to laws, promulgated, adjudicated and enforced by a sovereign source of authority were and (albeit in more attenuate forms) have continued to be the core objective of states.

Thus my main conclusion is that closer attention to the voluminous and sophisticated literatures in political and geopolitical history will expose for consideration by economic historians this point: only when pre-modern states became less preoccupied with external takeovers, safer from internal insurrections and efficient enough to construct or to hire the administrative capacities and information required to assess and collect taxes (and thereby to acquire credit or raise loans on the security of their revenues) could they begin to devote more attention and resources to the establishment of institutions and to the formation of physical and human capital for the promotion of economic growth. When, how, where and why states ruling empires, realms and republics across Eurasia obtained the revenues to retain the kind and degree of centralized and effective power to implement policies for economic development that both satisfied the greed of their dangerous elites for wealth and privileged status (or, in modern times, the demands of all their subjects for rising standards of living) along with security, stability and revenue is the key problem to address for programmes of research into the comparative history of political economy in the east and west of Eurasia.

Thus historical investigations into multiple and diverse cases of state formation of properly funded states is a prerequisite for any grounded comprehension of why some economies and societies established and maintained institutions favourable to economic growth before others. Analyses of the very different strategies pursued by various Eurasian empires, monarchies and oligarchies as they endeavoured to construct effective fiscal and financial systems should expose significant and major connexions between the political economy of state formation and divergent trends in productivity and standards of living between different parts of the global economy as both processes evolved for roughly a half-millennium down to the twentieth century.

Since effective states were states that possessed sufficient fiscal and financial capacities for purposeful actions, without adequate command over resources central governments could only provide reduced provision for essential public goods such as external security and internal order. By default underfunded states of pre-modern Eurasia simply relinquished responsibilities for the construction of legal and institutional frameworks for exchange, the coordination of markets, innovation and for physical and human capital formation to private enterprise and / or delegate them to lower level and nominally subordinated governmental authorities, less likely to realize economies of scale and scope associated with centralization. Yet liberal political economy maintains that delegation of responsibilities to private enterprise and to local authorities was usually a cheaper and more efficient strategy to pursue. That view dates, however, from a mod-

ern age when political stability, good order and geopolitical conflict could be taken as contained within manageable levels. Prior, to say, 1815, little in the historical record suggests that laissez-faire involving limited and more devolved levels of central governance might have increased rates of economic growth.

That observation flows from the fact that the prevailing medieval and early modern international order was one of geopolitical violence, conquest, imperialism and mercantilism as well as weakly enforced laws and rules for the protection of production and exchange located within and beyond the frontiers of empires, realms and republics. Most historians who study these centuries now realise that the formation of well and consistently funded centralized states approximates to a prerequisite for securing greater gains from trade, higher returns from domestic and foreign investment, for the accumulation of physical and human capital and material benefits from the production and diffusion of useful and reliable knowledge. With all their manifold imperfections, tendencies to aggression, proclivities for predation and indifference to the maintenance of privately sponsored institutions promotional for long term growth, the development of centralized states with the fiscal and financial capacities required to provide minimal degrees of external security, internal stability, protection for property rights and the integration and coordination of markets remained necessary for economic growth. This consideration leads to a claim for historical research to elaborate upon the geopolitical, political, geographical, economic, organizational, technological, cultural and other conditions behind the construction and maintenance of fiscal and financial systems by the samples of Eurasian states. State formation was part and parcel of the process of long run growth and could well be an important chapter in narratives designed to explain divergence between eastern and western economies, and possibly the key factor behind the observed sequence of leaders, followers and convergencies in any global history of modern industrialization.

Since historians do not anticipate that there could be anything approximating to a general theory of state formation, it is unfortunate that they have not yet been able to construct the database required to tabulate, calibrate, graph and compare long term trends and cycles in the amounts of revenue (domain income, taxes, credits and loans) available for expenditures by Eurasian states from, say 1492 onwards – a period when their inter-connexions became stronger, more regular, increasingly competitive and often violent. Plausible statistics for some polities for particular periods of time are in print. They can be validated, deflated and depicted to support statements about levels, cycles and trends in total revenues received as taxes, credits and loans by a small

sample of European states and by Asian and European empires. Occasionally revenues appropriated by states as taxes or flowing as rents from their domains, can be expressed as *shares* of national incomes, but alas, rarely for aggregated imperial outputs for China, the Mughal empire, the Habsburg or Ottoman dominions. Divided by populations they could also provide indicators of changes over time and across countries in the levels of funds available to states for the provision of public goods or for "wasteful" outlays by rulers upon goods and services that carried no benefits or represented as expenditures that might conceivably have been represented as positive for the long term growth of the economies or the social welfare of the populations over which they claimed dominion and sovereignty.

In short, comparisons across Eurasia's empires, monarchies, republics and other polities could be facilitated by converting their revenues into such real equivalents as quantities of grain, grams of silver or hours of labour time. This kind of "mercantilist arithmetic" would be entirely heuristic to display and contemplate and would facilitate a more structured and grounded discussion of major contrasts in the evolution of fiscal regimes required for the formation of states. Given that statistical evidence for such a database has not, or is unlikely to become available, historians must perforce fall back upon second best solutions. They refer to scattered data, but concentrate upon other evidence that displays contrasts in developments towards the long run formation of adequately funded Eurasian states. The ultimate limitation upon the money any of these states could conceivably have extracted as revenue upon a regular basis was given by the total outputs produced by subject workforces, with the land, natural resources and capital stocks located within the frontiers of empires, realms and republics over which rulers claimed sovereign rights to appropriate taxes; plus, we will add potentially taxable commodities and liquid assets imported into their territories and net returns from their domains. Such revenues could be supplemented by funds they managed to borrow from their subjects or from the citizens and governments of other countries. Obviously the more extensive the overall size of the imperial, national or city economies over which states claimed sovereignty and property rights to taxation, the larger *ceteris paribus* the bases available for purposes of taxation and *mutatis mutandis* the potential security for servicing the loans and credits necessary to defend and run centralized governments.

Before and until imports and re-exports became significant components of any economy, its potential fiscal base remained circumscribed initially by the size and productivity of the rulers own domain and as that declined, by the overall scale, structure

and productivity of the domestic economy available for taxation. Levels of tax revenues appropriated by states could also, however, be seriously constrained by the powers of emperors, monarchs or oligarchies to secure compliance with their rising demands for taxes and by the administrative systems and instruments available to them for the regular assessment and collection of taxes.

Limitations imposed by the size, structural characteristics and efficiency of a domestic economy could be circumvented with difficulty by policies designed to augment production, to raise productivity and increase taxable imports. Alternatively, states could invest in conquest and in the expropriation of territories and assets of rival states. Resort to warfare and conquest for purposes of taxation were, however, costly and risky strategies to pursue. Case studies reveal that the capacities of states to raise taxes (potentially available to pre-modern states to assess, collect and concentrate revenues under central control and thereby support borrowing) were everywhere more or less severely constricted by balances of power within polities; by open resistance, by widespread evasion, by a lack of economic information, by resort to counterproductive and short term gains from predation and perhaps, above all, by the small scale and low quality of either the public bureaucracies subordinated to political authorities, or from the franchised private firms all nominally employed for the assessment, collection and transfer of taxes into the coffers of central governments. In short, all pre-modern fiscal systems were difficult to establish and costly to use.

Every Eurasian state experienced unique difficulties in raising revenues that depended upon its own particular historical, geographical, geopolitical and political situation as well as evolving opportunities afforded by the scale and structure of economies underlying each and every fiscal base. They all confronted a set of comparable constraints which they accepted, evaded, solved or failed to transform as they moved in various ways and at different rates along their path dependant and explicable trajectories towards the construction of more centralized and better funded fiscal and financial systems for governance. It is these common fiscal and financial problems and the records of experiments with successful and unsuccessful solutions that provides opportunities for research programmes in comparative history and prospects for a grounded middle range of generalization for sets of case studies in the fiscal history of state formation.

All such narratives in comparative Eurasian history face (or avoid) the problem of defining initial conditions and selecting chronologies that seem relevant and interesting for any given polity. The available body of secondary sources, has, however, produced a predictable clustering around the centuries after 1500 and a general recognition of

an "Imperial Meridian 1783-1815" in European and Asian history. This meridian marks a conjuncture in the history of state formation when geopolitical and internal pressures on states to reform and reconstruct their traditional (feudal), fiscal and financial systems intensified and persisted almost everywhere over the century down to the First World War 1914-18. Most of the published literature on this theme deals with the establishment, reform and reconstruction of fiscal and financial institutions as that ubiquitous process proceeded – or rather staggered from war to war, crisis to crisis for some four centuries after 1492. Several studies of China reminds us that the history of Eurasian taxation goes back for millennia before that time. Fiscal histories of Mughal India, the Ottoman dominions, Habsburg Spain, Portugal, Genoa and Venice reveal why the tax and financial systems of empires, realms and republics had settled into stasis or schlerosis long before the seventeenth century. Such histories also reveal that the political and geopolitical conditions for other polities (e.g. Holland, England, Prussia, Russia) allowed for rising levels of taxes, credits and loans, they allocated to fund public goods for survival, stability, territorial and overseas expansion and for the varying types and degrees of fiscal centralization required to support the institutional developments leading to the formation of physical and human capital, innovation and cultural reordering behind the slow faltering and confined rates of long run economic progress observed across Eurasia over the last five hundred years.

Clearly the size of the polities measured in terms of populations, taxable wealth and total products varies all the way from the vast Ming-Qing Empire in the east to the tiny kingdom of Portugal, located on the extremity of Eurasia in the far west. Over the centuries that succeeded the famous conjuncture in world history associated with the rediscovery of the Americas in 1492 and the extension and deepening of connexions by seaborne transportation around Europe across the Atlantic and between the West and Asia, prospects for states seeking to appropriate tax revenues and raise loans increased or declined with the size of territories, natural resources, populations and international commerce over which they claimed fiscal rights. Extensive margins for taxation expanded and / or contracted with the conquest of lands, the subjugation of populations and with rising and falling shares of international trade in goods and services falling into the fiscal nets of different states. For example, and after ignominious expulsion from imperialism on the mainland of Europe in 1453, the fiscal potential of the English state collapsed, but then expanded along all three vectors right down to 1914.

From the vantage point of 1815 that trend, interrupted by the loss of 13 colonies in North America, looks singular. Some fiscal states virtually disappeared when, to

take two cases, most of the taxable capacity of the papal dominions was absorbed into the kingdom of Italy in the nineteenth century and when the fiscal base of the Mughal empire in India was expropriated by the English East India Company and passed under the control of the government of the United Kingdom between 1756 and 1808. While the Hapsburg province of the southern Netherlands only emerged as an autonomous fiscal state (Belgium) in 1830. Other Eurasian states experienced cycles of expansion and decline in their potential to appropriate taxation – cycles that are closely correlated to their geopolitical fortunes and misfortunes in warfare and in mercantilist competition with other states. For example, Venice (arguably the most effective fiscal and financial state in the world when Columbus rediscovered the Americas) lost maritime bases to the Ottoman empire and its established position of dominance in east-west commerce to a succession of maritime rivals - Portugal, the Netherlands and England. Thereafter, Portugal and the Netherlands eventually ceded their short-lived positions of primacy in transcontinental commerce and the fiscal resources they derived from that status to England.

Without exception, but in completely different degrees and at different times in their history, all Eurasian states extended the scope and scale of the fiscal bases potentially exploitable for purposes of taxation. They did so by agreement and mergers and by way of coercion, conquest, annexation and colonization. The ups and downs, gains and losses and extinction of autonomous polities in this geopolitical process of state formation as it proceeded over the centuries has been analysed in detail in the political and international histories of republics, realms and empires. It can be most readily comprehended with reference to historical atlases constructed to cover Eurasia.

Agreements to merge previously separated states normally included reservations, exceptions and exemptions from taxation as well as procedures for future changes as exemplified in the original fiscal constitutions for the European provinces of the Spanish and Austrian empires; for the United Provinces of the Netherlands; for the pays d'elections under a centralizing French monarchy; for the cities and princely dominions that signed up to be included in a Holy Roman Empire for Germany; and for those independent Italian towns incorporated into the Venetian republic and papal dominions.

In contrast to those fiscal regimes that emerged from dynastic marriages and / or diplomatic agreements, taxation imposed upon conquered territories and cities annexed in the aftermath of warfare, rebellion, plunder and tribute often left the societies and economies of conquered polities not only materially worse off than before, but reduced

"colonized" populations to positions of second class subjects, paying more than the original inhabitants for the privileges of being subjected to the rule of a new emperor, monarch, prince, grand duke or urban oligarchy. Inequality of treatment for purposes of taxation could solidify into rules and conventions whereby the shares demanded from provinces and cities for direct taxes to support states levied upon income and wealth depended upon their historical status and modes of entry into an empire, realm or republic.

Prolonged and persistent demands for taxation recognized as punitive in origin and intention was likely, however, to provoke resistance, raise the costs of coercion and the risks of internal instability. In time most states prudently attempted to move on in order to construct a fiscal regime of universal taxation in order to secure loyalty to a dynasty and to promote some sense of a common political identity. They endeavoured to secure feasible levels of compliance with their demands for more regular and increasing flows of revenue. Then and once annexed territories and societies became established parts of a conglomerated empire, composite kingdom, or federated republic, fiscal strategies emerged designed to secure regular flows of regionally or provincially specified quotas of total revenues required to support central government for an empire, kingdom or republic. These negotiated strategies sought to minimize resistance to taxation and to maximize the net inflows of revenues under central control. Over time the sources of regional inequalities observed in the data and the historical evidence for sustained resistance to central demands for revenues had much more to do with balances of political power between the court and local power elites; to asymmetric information available to metropolitan rulers and the politically subordinate oligarchies and aristocracies and in charge of local economies and the institutions constructed by states to appropriate taxes, from the more distant locations of annexed provinces, cities and estates that made up the confederated republics, realms and empires of Europe and Asia before 1914 than regional differences in wealth and income.

Although areas of territory, accessible natural resources, size of populations and values of foreign trade set limits to potential levels of revenue obtainable by states, those limits were not nearly as predetermined as many emperors, monarchs, and their advisers supposed at the time, or modern economists might assume. States in charge of smaller polities clearly compensated for their restricted access to the extensive fiscal bases ostensibly accessible to empires by engaging more intensively in overseas trade, an economic activity often more easily taxed than domestic incomes and production. In general the extensive agrarian empires to the east of Europe and to the West, South

and East of Asia, carried lower burdens of taxation per capita and per square kilometre of territory than their smaller and ostensibly more vulnerable rivals. But the latter compensated for their economic and geopolitical disadvantages in mercantilist ways by promoting the agglomeration of domestic production in towns and concentrating production on exports enjoying increasing returns to scale that encouraged taxable imports and tariffs that enabled firms to absorb taxes. Secondly, their monarchs and ruling elites could offset the disadvantages of scale by constructing fiscal regimes with complementary fiscal constitutions that promoted greater degrees of compliance with the higher demands for taxation per capita by allocating funds for provincial and local expenditures on public goods such as defence, administration, legal frameworks, institutions for the protection of property and the coordination of markets recognized by taxpayers as necessary and useful for the their security and the protection of their persons and above all, their wealth and privileges.

Thus, states ruling over smaller polities could enjoy the advantages flowing from loyalty and national identity by governing more cohesive societies, geographically separated regions at comparable levels of economic development and populations less alienated by race, religion and culture from emperors, aristocracies and educated elites, attempting to manage and tax far flung and heterogeneous empires. Although the areas of territory, access to natural resources, size of populations and values of foreign trade over which states claimed to exercise fiscal sovereignty set limits for potential levels for taxation, the meta question how effectively different states mobilized and optimized that potential to fund public goods to support institutions for sustained economic growth is altogether more difficult to answer.

What can be gleaned from bilateral and multilateral comparisons of case studies of Eurasian fiscal systems in print is how strongly conditioned their capacities for rule and revenue were by the scale, geographies and geopolitical situations of the political units that states attempted to defend, maintain and expand. Of course, and in large measure, the scale of these units can be strongly correlated to the dynastic ambitions of emperors, kings, patricians and oligarchies, and the extent to which the imperialistic tendencies embodied in the Eurasian state system could be held in check by the geopolitical and political realities of their locations and situations. For example, fortuitously, but fortunately, the predatory tendencies of English kings and aristocrats towards the mainland of Europe were halted decisively and permanently by French monarchs, knights and cannons as early as 1453. For its prosperous golden age the Venetian oligarchy retained a shrewd appreciation of the territorial and fiscal limits

to their power. In contrast and apart from Charles V, Spain's monarchs lacked all sense of imperial overstretch. From small initial fiscal bases the Kings of Prussia and Emperors of Muscovy and Austria conquered territories and populations which they confederated into the makeshift fiscal systems of empires that survived the vicissitudes and costs of interstate rivalry and conflicts down to 1914.

After centuries of expansion the territories, population and fiscal base of the Mughal empire became increasingly afflicted by internecine strife and was incorporated into a British empire that seized its revenues and diverted profits from intercontinental commerce with South Asia away from all its former maritime rivals - Portugal, Spain, the Netherlands and France. After failures to construct or hire franchised bureaucracies to assess, cull and despatch sufficient and sustainable levels of tax revenues to rule effectively and efficiently over their heterogeneous polities, rulers of the Habsburg Dominions and Ottoman Empires (Spanish, Austrian and Turkish) lost taxable territory and wealth on the mainland of Europe. Napoleon's attempt to create a French empire with a viable fiscal regime hardly moved on from plunder to taxation in the west. Japan's empire in the east lasted for about fifty years without any significant fiscal gains for the metropolitan state. While the Qing empire's enormous territorial extension in central Asia in the eighteenth century and the late imperialism (or the carve up of Africa among European powers, 1882-1902) increased governmental expenditures far more than any revenues or taxable incomes derived from these atavistic episodes in geopolitics and imperialism.

Emperors, monarchs, nobilities and urban oligarchies of early modern times attempted for centuries to enforce their claims to fiscal rights over the cultivable lands, natural resources, capital and labour time contained within the borders of territories that their predecessors and dynasties had agglomerated and confederated into Eurasian empires, kingdoms, dominions and city states. Over time the borders of these pre-modern states were extended, conquered, lost and restored more often than not without regard to prospects for sustaining, fiscal regimes to fund: defence against hostile takeovers, aggressive foreign policies, sufficient controls over the means of coercion to preclude domestic challenges to their sovereignty; to maintain internal order and to allocate modest surpluses to sustain institutions, form capital and encourage innovations for long term economic development. Everywhere across Eurasia, regardless of the constitutional form of a polity or the underlying potential of its economy to supply stable average annual flows of tax revenues into the coffers of central states the levels of

expenditures on public goods were matters for political negotiations and concessions to the realities of power and the costs of coercion.

The political forms and constitutional arrangements for negotiations over taxation (coupled to credits and loans) varied over time and across polities. Some operated fiscal regimes embedded in constitutions providing for formal and regularized systems of consultation with aristocratic elites and assemblies of noble plutocracies. Others dealt with established and traditionally constituted provincial and local authorities (eg. estates of noble families) on to whom politically arranged responsibilities for the assessment, collection and despatch of taxes demanded for proto-states had been devolved often at high cost for central governments.

Conventions, traditions and ideologies (e.g. Confucianism or Christianity) played into these negotiations over "acceptable" levels of demand for ordinary and for extraordinary understandings over taxation and debt. They influenced the range of commodities, services, personal incomes and wealth, selected as eligible as a basis for the assessment of liabilities for taxation. In this age when the access of states to information about their fiscal bases remained entirely limited and their organizational capacities to monitor either local power elites, franchised firms (tax farmers) or bureaucracies assessing, collecting and handling taxes appropriated, ostensibly on their behalf, also remained rudimentary, the costs incurred to obtain stable and increasing flows of taxation (with access to credit on the security of taxes) continued to be very high. In this geopolitical and political order successful states can be recognized as those that somehow (and usually after a crisis of the state) constructed fiscal regimes that optimized shares of the taxable surpluses available within the frontiers of metropolitan and colonized territories over which such states claimed sovereignty.

Over several centuries in which the technologies and organizational forms for the exercise of power at a distance remaining rudimentary, the foundational conditions for establishing, maintaining and extending fiscal regimes to support developmental (Weberian states) seem far too complex to be accounted for by underspecified or irrelevant theories, based on rational choices: by references to unmeasurable connexions to economic and social structures or above all by citing a congenial tradition of liberal thought, going back to Montesquieu of linking successful fiscal states to parliamentary forms of government.

What seems to have been most often neglected by economics, politics and other social sciences is the geopolitics of the long and violent histories involved in drawing and re-drawing frontiers and its legacies of large decentralized, underfunded and weak

imperial regimes that had willy nilly taken over smaller and vulnerable polities. Political historians have long recognized that many European states became too small to survive. Equally as the accumulation of case studies in history will reveal, early modern empires in the west as well as the east (agrarian and urban) became too large and heterogeneous to evolve into developmental or Weberian states. If this observation turns out to be valid, it may have been significant enough to be represented as a major source for the differentials in real wages currently being exposed in databases designed to measure convergence and divergence in Eurasian standards of living across time and space. Institutional explanations for economic growth are ultimately reducible to case studies in political and geopolitical history – hopefully with more help than is currently available from economic and political theory.

A Bibliography of Secondary Sources Consulted

ABERNATHY, D. (2000). *The Dynamics of Global Dominance. European Overseas Empires 1415-1980*, New Haven.

ADSHEAD, S. (1995). *China and World History*, Basingstoke.

ALAM, M. and S. SUBRAHMANYAM (eds.). *The Mughal State 1526-1750,* (ed.) (1998) Delhi.

ALLEN, R. (2009). *The British Industrial Revolution in Global Perspective,* Cambridge.

ARDANT, G. (1971-72). *Histoire de l'impot*, 2 vols, Paris.

ARRIGHI, G. (1994). *The Long Twentieth Century. Money, Power and the Origins of our Times,* London.

BARKEY, K. (1994). *Bandits and Bureaucrats. The Ottoman Route to State Centralization* Ithaca.

BAYLY, Ch. (2004). *The Birth of the Modern World 1780-1914,* Oxford.

BERG, M. (2005). *Luxury and Pleasure in Eighteenth Century Britain,* Oxford.

BERNHOLZ, P. and R. VAUBEL (eds.) (2004). *Political Competition, Innovation and Growth in the History of Asian Civilizations,* Cheltenham.

BLACK, J. (1998). *War and the World: Military Power and the Fate of Continents,* New Haven.

BLAUT, J. (2000). *Eight Eurocentric Historians*, New York.

BLICKEL, P. (ed.) (1997). *Resistance, Representation and Community,* Oxford.

BLITZ, R. (1967). "Mercantilist Policies and the Pattern of World Trade 1500-1750", in *Journal of Economic History* 27, 2, pp. 39-55

BLOCKMANS, W. (1997). *A History of Power in Europe: People, Markets, States,* Oxford.

BONNEY, R. (1991). *The European Dynastic State*, Oxford.

BONNEY, R. (1999). *The Rise of the Fiscal State in Europe,* Oxford.

BONNEY, R. (ed.) (1995). *Economic Systems and State Finance*, Oxford.

BOWEN, H. and A.GONZÁLEZ ENCISCO (eds.) (2006). *Mobilizing Resources for War: Britain and Spain at Work in the Early Modern Period*, Pamplona.

BRAUDEL, F. (1981-84). *Civilization and Capitalism*, 3 vols, London.

BROOK, T. and G. BLUE (1999). *China and Historical Capitalism*, Cambridge.

BRYANT, J. (2006). "The West and Rest Revisited. Debating Capitalist Origins. European Colonialism and the Advent of Modernity" in *Canadian Journal of Sociology* nº 31.

CANNY, N. (ed.) (1994). *Europeans on the Move. Studies on European Migration 1500-1800,* Oxford.

CARDOSO, J. and P. LAINS (eds.) (2010). *Paying for the Liberal State: the Rise of Public Finance in Nineteenth Century Europe,* Cambridge.

CASELLI, F. (ed.) (2008). *Government Debts and Financial Markets in Europe*, London.

CHANDRA, D. (1998). "Review of the Crisis of the Jagirdari System" in ALAM and SUBRAHMANYAM, (eds.).

CHANG, H.J. (2002). *Kicking Away the Ladder. Development Strategy in Historical Perspective*, London.

CHANG, H.J. (ed.) (2007). *Institutions for Economic Development. Theory, History and Contemporary Experience,* Tokyo.

CHAUDHURI, K. (1990). *Asia Before Europe. Economy and Civilization of the Indian Ocean from the Rise of Islam to 1750*, Cambridge.

COLEMAN, D. (ed.) (1969). *Revisions in Mercantilism*, London.

CROSSLEY, P. et al (eds.) (2006). *Empire at the Margins: Culture, Ethnicity and Frontier in Early Modern China,* Berkeley.

DARWIN, J. (2007). *After Tamerlane. The Global History of Empire*, London.

DENG, G. (1993). *Development Versus Stagnation. Technological Continuity and Agricultural Progress in Pre-modern China,* Westport.

DENG, G. (1997). *Chinese Maritime Activities and Socio-economic Developments c. 2100BC-1900AD,* Westport.

DENG, G. (1999). *The Premodern Chinese Economy. Economy, Structural Equilibrium and Capitalist Sterility*, London.

DENG, G. (2011). *Changes in State Building and Economic Growth in China 1840-1990*, London.

DENG, G. (2012). "The Origin of a Fiscal State. Its continuation and Change in China", in YUN CASALILLA and O'BRIEN (eds.).

DINCECCO, M. (2009a). 'Fiscal Centralization, Limited Government and Public Revenues in Europe 1650-1913' in *Journal of Economic History* nº 69, pp. 48-103.

DINCECCO, M. (2009b). "Political Regimes and Sovereign Credit Risk in Europe 1750-1913" in *European Review of Economic History* nº 13, pp. 48-103.

DINCECCO, M. (2011). *Political Transformations and Public Finances: Europe, 1650-1913,* Cambridge.

DIXIT A. (2002). "Incentives and Organizations in the Public Sector", in *Journal of Human Resources*, nº 37, 4, pp. 697-727.

DOWNING, B. (1992). *The Military revolution and Political Change. The Origins of Democracy and Autocracy in Early Modern Europe*, Princeton.

DOYLE, M. (1986). *Empires*, Ithaca.

DUNSTAN, H. (1996). *Conflicting Counsels to Confuse the Age. A Documentary Study of Political Economy in Qing China, 1644-1840*, Ann Arbor.

DYSON, K. (1980). *The State Tradition in Western Europe. A Study of an Idea and an Institution,* Oxford.

EKELUND, R. and R. TOLLISON (1997). *Politicized Economies: Monarchy, Monopoly and Mercantilism*, College Station, Texas.

EKELUND. R. and R. TOLLISON (1981). *Mercantilism as a Rent Seeking Society*, College Station Texas.

ELIAS, N. (1982). "The Civilizing Process", Vol. 2 *State Formation and Civilization*, Oxford.

ELLIS, F. (2005). "In What Way and to What Degree did the Mughal State Inhibit Smithian Growth in India in the Seventeenth Century?", GEHN Working Paper 14/05, LSE.

EPSTEIN, S. (2002). *Freedom and Growth. Markets and Sates in Premodern Europe*, London.

ERTMAN, Th. (1997). *Birth of the Leviathan. Building States and Regimes in Early Modern Europe*, Cambridge.

FAROQHI, S. and D. QUATAERT (1997). *An economic and social history of the Ottoman Empire*, Cambridge.

FERGUSON, N. (2002). *The Cash Nexus. Money and Power in the Modern World*, London.

FIELD, A. (1981). "The Problem with Neoclassical Institutional Economics", *Explorations in Economic History*, 18, pp. 174-98

FINDLAY, R. and K. O'ROURKE (2007). *Power and Plenty. Trade, War and the World Economy in the Second Millennium*, Princeton.

FINDLAY, R. et al (eds.) (2006). *Eli Heckscher, International Trade and Economic History,* Cambridge, Mass.

FRITCHY, W. et al (2012). "Public Finance in the United Provinces of the Netherlands" in Yun CASALLILA and O'BRIEN (eds.). Vide her unpublished paper comparing the public finances of the Ottoman Empire with the Netherlands (Amsterdam, 2009).

GAT, A. (2006). *War in Human Civilization*, Oxford.

GENET, J.Ph. et M. LE MENÉ (1987). *Genèse de l'Etat modern,* Paris.
GLETE, J. (2002). *War and the State in Early Modern Europe*, London.
GOMES, L. (1987). *Foreign Trade and the National Economy*, Basingstoke.
GRIEF, A. (2006). *Institutions and the Path to the Modern Economy*, Cambridge.
HALL, J. (1985). *Powers and Liberties,* Oxford.
HALL, J. and R. SCHROEDER (2006). *An Anatomy of Power. The Social Theory of Michael Mann,* Cambridge.
HASAN, N. (1998). "Zamindars under the Mughals", in ALAM and SUBRAHMANYAM (eds.)
HELPMAN, E. (2004). *The Mystery of Economic Growth,* New York.
HERBST, J. (2000). *States and Power in Africa*, Princeton.
HIRSCHMAN, A. (1978). "Exit, Voice and the State", in *World Politics*, nº 31, 1, pp. 90-107.
HODGSON, G. (2000). *How Economics Forgot History*, London.
HOFFMAN, Ph. and K. NORBERG (eds.) (1994). *Fiscal Crises, Liberty and Representative Government*, Stanford.
HOSELITZ, B. (ed.) (1960). *Theories of Economic Growth*, New York.
HUTCHISON, T. (1988). *Before Adam Smith*, Oxford.
INALCIK, H. and D. QUATAERT (eds.) (1994). *An Economic Social History of the Ottoman Empire 1300-1914,* Cambridge.
JONES, E. (2003). *The European Miracle*, Cambridge.
KARAMAN, K. (2009). "Decentralized Coercion and Self Restraint in Provincial Taxation: the Ottoman Empire, 15th and 16th Centuries" in *Journal of Economic Behaviour and Organization* nº 71, pp. 690-703.
KARAMAN, K. and S. PAMUK (2008). "Ottoman State Finances and Fiscal Institutions", unpublished paper, Bogazici University, Istanbul.
KARAMAN, K. and S. PAMUK (2010). "Ottoman State Finances in Comparative European Perspective, 1500-1914" in *Journal of Economic History,* nº 70, pp. 593-630.
KARAMAN, K. and S. PAMUK (2010-unpublished). "Different Paths to the Modern State: The Interstate Competition", Department of Economics, Bogazici University, Istanbul.
KIYOTAKI, K. (2005). *Ottoman State Finance. A Study of Fiscal Deficits and Internal Debt, 1859-63*, LSE Working paper nº 90.
KUHN, P.A. (2002). *Origins of the Modern Chinese State,* Stanford.

KURAN, T. (2011). *The Long Divergence,* Princeton.
LACHMANN, R. (2000). *Capitalists in Spite of Themselves. Elite Conflict and Economic Transitions in Early Modern Europe,* New York.
LANDERS, J. (2003). *The Field and the Forge. Populations, Production and Power in the Pre-Industrial West*, Oxford.
LANDES, D. (1998). *The Wealth and Poverty of Nations*, New York.
LEONARD, J. and J. WATTS (eds.) (1992). *To Achieve Security and Wealth. The Qing Imperial State and the Economy, 1644-1911,* Ithaca.
LEVI, M. (1988). *Of Rule and Revenue,* Berkeley.
LIEVEN, D. (2000). *Empire. The Russian Empire and its Rivals,* London.
LIU, J. (2006). "Cultural logics for the Regime of Useful Knowledge during the Ming and Early Qing China c. 1400-1700", unpublished paper of 9th Global Economic Network Conference, Kaohsiung, Taiwan.
MACFARLANE, A. (2000). *The Riddle of the Modern World of Liberty, Wealth and Equality,* Basingstoke.
MAGNUSSON, L. (ed.) (2002). *Mercantilist Economics,* London.
MANN, M. (1986). "The Sources of Social Power", Vol. 1. *A History from the Beginning to 1760AD*, Cambridge.
MENARD, Cl. and M. SHIRLEY (eds.) (2005). *Handbook for New Institutional Economics*, Norwell.
MODELSKI, G. and W. THOMPSON, *Seapower in Global Politics, 1494-1993*, London.
MOKYR, J. (2006). "Mercantilism, the Enlightenment and the Industrial Revolution", in R. FINDLAY et al (eds.). *Eli Heckscher, International Trade and Economic History*, Cambridge, Mass.
MOKYR, J. (2009). *The Enlightened Economy. The Economic History of Britain 1700-1850,* London.
MOOERS, C. (1991). *The Making of Bourgeois Europe*, London.
MUNKLER, H. (2007). *Empires. The Logic of World Domination from Ancient Rome to the United States*, Basingstoke.
NORTH, D. (1981). *Structure and Change in Economic History*, London.
NORTH, D. (1990). *Institutions, Institutional Change and Economic Performance*, Cambridge.
NORTH, D. et al. (2009). *Violence and Social Orders: a Conceptual Framework for Interpreting Recorded Human History,* Cambridge.

O'BRIEN, P. (2002). "Fiscal Exceptionalism. Great Britain and its European Rivals from Civil War to Triumph at Waterloo", in WINCH and O'BRIEN (eds.).

O'BRIEN, P. (2006). "Contentions of the Purse between England and its European Rivals from Henry V to George IV: A Conversation with Michael Mann", in *Journal of Historical Sociology*.

O'BRIEN, P. (2011). "The Contributions of Warfare with Revolutionary and Napoleonic France to the Consolidation and Progress of the British Industrial Revolution", *Department of Economic History, London School of Economics* Working Paper nº 150.

O'BRIEN, P. (2011). "The History, Nature and Significance of an Exceptional Fiscal State for the Growth of the British Economy", in *Economic History Review*, pp. 408-46

PAMUK, S. (1987). *The Ottoman Empire and European Capitalism, 1820-1913,* Cambridge.

PAMUK, S. (2012). "The Evolution of Fiscal Institutions in the Ottoman Empire", in YUN CASALILLA and O'BRIEN (eds.).

PARTHASARATHI, P. (2011). *Why Europe Grew Rich and Asia Did Not,* Cambridge.

PENDERGAST, C. (1999). "The Provision of Incentives in Firms", in *Journal of Economic Literature*, nº 37, March, pp. 7-63.

Perdue, P. (2005). *China Marches West. The Qing Conquest of Central Eurasia*, Cambridge, Mass.

PERSSON, T. and G. TABELLINI (2003). *The Economic Effects of Constitutions*, Cambridge.

POGGI, G. (1990). *The State: Its Nature, Development and Prospects*, Cambridge.

POHL, H. (ed.) (1990). *The European Discovery of the World and its Economic Effects on Pre-Industrial Society 1500-1800,* Stuttgart.

POMERANZ, K. (2000). *The Great Divergence. China, Europe and the Making of the Modern World Economy,* Princeton.

QUATAERT, D. (2000). *The Ottoman Empire 1700-1922,* Cambridge.

QUATAERT, D. (ed.) (1994). *Manufacturing in the Ottoman Empire and Turkey 1500-1950*, Albany.

REINERT, E. (1999). "The Role of the State in Economic Growth", in *Journal of Economic Studies*, 26, 415, pp. 268-326.

REINERT, E. (ed.) (2004). *Globalization, Economic Development and Inequality*, Cheltenham.
REINERT, E. and K.S. JOMO (eds.) (2005). *The Origin of Development Economics*, London.
REINHARD, W. (ed.) (1996). *Power, Elites and State Building*, Oxford.
RICHARDS, J. (1993). *Power, Administration and Finance in Mughal India*, Aldershot.
RICHARDS, J. (1995). *The Mughal Empire*, Cambridge.
RICHARDS, J. (2012). "Fiscal States in Mughal and British India", in YUN CASALILLA and O'BRIEN (eds.).
SKINNER, A. and T. WILSON (eds.) (1976). *The Market and the State; Essays in Honour of Adam Smith*, Oxford.
SMELSER, N. and R. SWEDBERG (eds.) (2006). *Handbook of Economic Sociology*, Princeton.
STORRS, Ch. (ed.) (2009). *The Fiscal-Military State in Eighteenth Century Europe,* Aldershot.
STRUVE, L. (ed.) (2004). *The Qing Formation in World Historical Time,* London.
TEICHOVA, A. and H. MATIS (eds.). *Nation, State and the Economy in History*, Cambridge.
THOMPSON, W. (2000). *The Emergence of Global Political Economy*, London.
TILLY, Ch (1990). *Coercion, Capital and European States 990-1990*, Oxford.
TILLY, Ch. (1975). *The formation of National States in Western Europe*, Princeton.
TIMMONS, J. (2005). "The Final Contract: States, Taxes and Public Services" in *World Politics* nº 57, pp. 530-67
TORRES SANCHEZ, R. (ed.) (2007). *War, State and Development. Fiscal, Military States in the Eighteenth Century*, Pamplona.
TRACY, J. (ed.) (1991). *The Political Economy of Merchant Empires. State Power and World Trade 1350-1750,* Cambridge.
TRACY, J. (ed.) (1991). *The Rise of Merchant Empires. Long Distance Trade in the Early Modern World 1350-1750,* Cambridge.
VRIES, P. (2003). *Via Peking and Back to Manchester: Britain, the Industrial Revolution and China*, Leiden.
WADE, R. (2004). *Governing the Market. Economic Theory and The Role of Government in East Asian Industrialization,* Princeton.
WEEDE, E. (1996). *Economic Development, Social Order and World Politics,* London.
WEISS, L. and J. HOBSON (1995). *States and Economic Development,* Cambridge.

WINCH, D. (1996). *Riches and Poverty. An Intellectual History of Political Economy in Britain 1750-1834*, Cambridge.

WINCH, D. and P. O'BRIEN (2002). *The Political Economy of British Historical Experience*, Oxford.

WONG, R.B. (1997). *China Transformed and the Limits of European Experience*, Ithaca.

WONG, R.B. (2012). "Taxation and Good Governance in China", in YUN CASALILLA and O'BRIEN (eds.).

WONG, R.B. and J. L. ROSENTHAL (2011). *Before and Beyond Divergence. The Politics of Economic Change in China and Europe,* Cambridge, Mass.

YUN CASALILLA, B. and P. O'BRIEN (eds.) (2012). *The Rise of Fiscal States in Europe and Asia,* Cambridge.

ZELIN, M. (1984). *The Magistrates Tael. Rationalizing Fiscal Reform in Eighteenth Century Ch'ing China*, California.

ZMERA, H. (2001). *Monarchy, Aristocracy and the State in Europe, 1300-1800*, London.

The Royal African Company's Contractors 12

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John Brewer famously characterised an early modern Europe of fiscal-military states. Patrick O'Brien has argued that Britain (England before 1707) was really a fiscal-naval state as the Royal Navy was more important than the army. The Royal Navy was not only a key part of Britain's strategies for both trade and war, it was also a major economic player in its own right. Roger Knight and others have recently completed a major study into the Royal Navy's contractors during the period 1793 to 1815. There is also work regarding naval contracts at an earlier date. For example, Flinn's study of the important iron manufacturer Ambrose Crowley. This paper presents the initial findings from a study of the Royal African Company's records for the years 1705 to 1713. The Royal African Company (RAC) was a major joint-stock company with close links to the state and to the Royal Navy. The RAC records contain details of the company's contractors which ultimately can be compared with similar information from naval records.

In the early modern period, European states used large trading companies as agents of government policy. In the case of joint-stock companies, like the RAC, the company would be given special privileges enshrined in a royal charter. Its shares would have different features to other types of shares and financial instruments, being easily assignable (transferable). In exchange, joint-stock companies would perform a variety of functions for the state. Companies, such as the Bank of England or the South Sea Company, restructured parts of the National Debt. They might also loan money to the state. As large enterprises closely linked to the state, they had an impact upon the economy through their purchases of goods and services. Whilst the Royal Navy's contractors have been closely studied, the same cannot be said for many joint-stock

companies like the RAC. This paper examines some of those contractors and their relationship with the RAC.

The RAC minute book used here covers the years 1705 to 1713, which is an interesting period in the company's history. The War of the Spanish Succession (1702-1713) was disrupting shipping and the convoy protection used by the company. The RAC had lost its exclusive rights to the African trade already in 1698, and independent traders were supposed to pay a fee to help maintain the company's forts (Davies: 45-46). After 1712, the fee was abolished. Davies characterised the period as one of decline. Carlos and Kruse believed that this was due to the competition from interlopers, rather than from any failing on the part of the company itself.

The RAC's private business was centred around shipping slaves from Africa to the Caribbean. It had a number of forts and trading posts along the coast, roughly between the River Senegal and the town of Ouidah (Whydah) in modern-day Benin. These forts served the private aims of the company, as they housed company officials and soldiers and slaves awaiting transport. They also served as warehouses for goods. The forts also protected harbours which could be used by any British trader (Davies: 46). They could also be used by the Royal Navy. The RAC provided a number of other functions for the state, and the Royal Navy in particular, which in later periods might be within the remit of a consulate or embassy. For example, the RAC provided the Royal Navy with information about pirates in the area and also allowed the navy to quarter captured pirates in its forts. RAC officials served as judges in the trials of pirates. The RAC offered to carry letters from the Admiralty to Royal Navy ships. RAC ships would also sail with naval provisions to supply ships already at the coast, or pick up provisions, such as Madeira wine, along the way (Paul: 287-293).

The Royal Navy, in return, provided a number of services to the RAC. Royal Navy ships carried goods and personnel for the RAC, including shipping the company's gold. The Admiralty regularly provided Men of War as convoy ships to escort RAC ships to the coast. The RAC was also given some access to the navy's own facilities in England: its dockyards and stores. The navy's Victualling Board's accounts for 1721 show a substantial quantity of provisions was made available to the RAC (Paul: 287-293).

The Royal Navy was an important purchaser of goods and services. Some of its suppliers were also able to operate on a grand scale. The most notable example was the iron manufacturer, Sir Ambrose Crowley (1658-1713). Flinn (51-2) characterised Crowley as *'one of the greatest of early English industrialists'*. The Royal Navy was his

principal customer as ironware was an important part of naval stores. Flinn noted that in the naval accounts for the year 1700, expenditure on ironware came second only to that payments for masts and timber. One of Crowley's closest rivals in iron manufacturing was Isaac Loader. Loader's firm had an arrangement with Crowley when it came to naval supply, but not otherwise (Flinn: 54). The Navy dealt with smaller contractors as well, and also had its own employees and establishments for producing goods and services. For example, it had its own dockyards but also commissioned private yards to build ships (Rodger: 188).

The Royal Navy's own yards dwarfed their nearest equivalents in the private sector. Rodger (189) noted that whilst the Navy employed over 2,500 shipwrights in 1703, the largest private yard employed only 32. The Navy tied some of its contractors to exclusive contracts, but bought some supplies on the open market (Rodger: 189-9). Despite the importance of supply to the navy, its contractors might face lengthy arrears or unfavourable contracts. The various parts of the naval administration were reformed from time to time, but inadequate funding, poor management or corruption were recurrent problems. The Victualling Board was reorganised in 1701 and some progress was made, but its credit was never good and it still struggled to provide decent victuals to the fleet.

The RAC was certainly a much smaller concern than the Royal Navy. It hired some of its ships from their owners. It also had less power in the marketplace over its contractors. However, it had the flexibility that the naval administration lacked. As a private concern, it could not impress seamen. If it did not feed, clothe and pay its seamen properly, it would struggle to keep them. Some of the contractors of the RAC may well have supplied the Royal Navy, especially for certain trades or goods. The RAC's ships and men were armed, for instance. Therefore, there are many mentions of guns in the records. However, the RAC also took guns to the African coast to barter for slaves. It took items such as cloth, cowrie shells and coral, for the same purpose. The RAC's minute books have been used to great effect by its historians, especially by Davies.[1] However, little work has been done on the contractors to the company. Yet the minute books record the names of contractors, their goods or services and the amount paid to them. Most of the words are still legible, although the handwriting can be difficult to read at times. The records do not necessarily refer to the dates in which goods were delivered, but merely when they were paid for. Certain sums were

1 They are held in the T70 class in the National Archives (Public Record Office) at Kew, London.

paid on account and perhaps sums were settled in full. However, payments were ordered regularly at almost every weekly meeting. Conversely, navy payments could fall into arrears of several months, if not years.

As may be expected, the majority of names mentioned in the minute book belong to men. There are two women who feature prominently. One is Sarah Bristan who supplied beef and pork. She is referred to in one account as a butcher, and in one as a 'butcheress' (T70.88: 21 August 1705 and 20 December 1706). She is usually not given a title, but in one instance is referred to as Mrs Sarah Bristan. This does not prove that she was a married woman, as it may be something of a courtesy title. It is likely that she inherited the business from a male relative, most likely a husband. Another woman whose name appears often is Sarah Buggins, who supplied casks. The nature of both the Sarahs' businesses imply that heavily manual work was involved and that neither enterprise was very small. The women were not in a cottage industry derived from traditional housewifery, such as embroidery work or home brewing. The size of the payments made by the RAC gives another indication of the scale of the enterprise. Sarah Bristan's payments were often around the 50 l. mark, but could be twice that. As a rough guide to scale, comparison can be made with the Victualling Office's (of the Royal Navy) estimates for 1714. The Victualling Office calculated that 20,500 l. should purchase 520,000 pieces of beef (probably a piece was most of a carcase). Therefore, 100 l. would buy approximately 2,500 pieces of beef.

Amongst the male contractors, many are merely given their first names and surnames. Occasionally, there are two names mentioned, which may be a small partnership. There are instances of the same surname appearing, which may be two brothers or father and son. The company bought 'simeters' from John and Ann Merriden (T70.88: 29 November 1705). The goods may possibly be scimitars. John and Ann may well have been husband and wife. However, it is noticeable that both are mentioned rather than just John Merriden. Occasionally, the words 'and Company' appear in the accounts, which imply that an enterprise is of some standing. Some names are preceded with the title 'Mr' and one with 'Sir'. However, the spellings and form of address are not necessarily consistent. One or two names are familiar, in particular Ambrose Crowley and Peter Joye. Crowley has already been mentioned. Joye and Crowley both became shareholders in another great joint-stock company, the South Sea Company. Naval contractors' bills were so far in arrears that the government granted them shares in the new South Sea Company instead of paying them in cash (Flinn). Peter Joye's name appears in several places in RAC minute book for the period from September

1705 to April 1707 as a supplier of ironware. Perhaps strangely, Ambrose Crowley's name appears only once (T70.88: 4 July 1706). He provided ironmonger's good for a sum of £319, 3 shillings. In the same account, Peter Joye was paid c. £900 for iron and one Henry Boswell was paid £350 for ironmonger's goods. The name Isaac Loader (the other great supplier to the navy) does not appear in this period. Despite the closeness between the RAC and the Royal Navy, it seems that they did not share the same main suppliers of ironware.

Some of the items bought by the RAC would have been no use to the Royal Navy at all. The large quantities of cowries, coral and fancy cloth, were used for the barter trade only. However, the RAC's need for chandler's goods, food and drink, clothing, armaments and casks would have been similar to the navy's, but on a smaller scale. The RAC did not need to build its own ships from scratch, as it could hire them. However, it could also commission ships to be built and make payments for ships to be rigged. As these activities were not frequent, the company may well have simply hired the services of trained craftsmen or commissioned its ships at a private yard.

During this period, the Royal Navy's Victualling Board attempted to put contracts out to tender. However, contractors could often bypass the Board by delivering provisions straight onboard ship. The quality was often deplorable (Rodger: 193-4). The RAC, by contrast, seems to have had no complaints with the quality of goods it received from Sarah Bristan (beef and pork) and John Hoare (beans). It used these suppliers for several years, with no competitors. It was not company policy to only use one supplier, as has been seen with ironware. However, certain contractors seem to have enjoyed this special favour. For example, the company only bought knives from Abraham Lodge and only bought beads from Daniel Jamineau (or Lamineau) (T70.88).

During the war years, the country faced several bad harvests. The most acute shortages were felt in 1709. The Victualling Board had great difficulty in obtaining supplies of certain foods in that year (Merrimen: 252). Some of the Navy's problems with supply were due to genuine shortages for a range of goods. Some of its difficulties arose from its own bad credit. The RAC's minute book for the year 1709 does not show any discussion of the poor harvests. Sarah Bristan was still supplying the company's meat. Ambrose Crowley (now knighted) is listed, but for small sums. The company's records refer to paying some of their tradesmen in bonds. For example, on 4 May 1710, it was decided that gunmakers would be paid in bonds dated one month later (T70.88). The company was also willing to take warrants and bonds in exchange for its goods at sales (e.g. 13 April 1710: T70.88). The company had also mortgaged some of its goods,

and then was able to pay off this mortgage (13 December 1709). The company's difficulties at this period included disruption to its sailings to Africa and competition from other traders. It was still shipping in gold and silver from the Caribbean however. Its stock of precious metal was more valuable to the East India trade, and according it was able to sell it all to the East India Company (29 July 1709). However, it was having difficulties in the years 1709 and 1710 in supplying its forts and factories on the African coast. Part of the reason may be due to disruption to the convoy system and risks at sea. Part of it may well be a general shortage of supplies and high prices occasioned by war expenditure and poor harvests.

The Navy, like many other branches of the state apparatus, made use of the personal credit of the officials. James Brydges, Paymaster General during the War, is a famous example. Brydges, later 1st Duke of Chandos, built a large fortune from his office. On a smaller scale, the navy's pursers were required to risk their own money and supply necessary goods to their ship's company if stores ran out onboard. In return, they were granted various opportunities to profit from their office (Merriman: 253). The RAC's records contain one instance of what may be the use of private credit. Sir William Fazackerley was a member of the company's Committee of Goods (T70.88). He also appears to have been a merchant. On 4th July 1706, he is listed next to the sum of 26 l. and 5s. for the sale of 'White Janes' to the company. The items is likely to be a type of cloth, but Sir William does not appear as a contractor elsewhere in the period 1705 to 1710 so it is hard to say. His name appears again on 30th November 1710, when a complicated entry appears: *Agreed that the £76, 10 – Principle Money of Sr. William Fazakerley's, be wrote off any of his bonds, Except the Specie Bond dated 28th August 1707 for £100, To Answer the like Sum due on his Note* (T70.88, 30 November 1710).

Fazakerley may have been a purchaser of goods from the company, as some others were. (For example, Thomas Pindar, the Deputy Governor, purchased lots at the RAC's sales (e.g. T70.88 3 August 1710).) For whatever reason, Fazakerley seemed to owe and to be owed money by the company. He owned bonds (i.e. had loaned money to the company) but also had a 'note' or invoice which must refer to some other type of debt. It is possible that he was using his personal credit, like a government official would. If so, that would be an unlikely arrangement for the RAC, given the entries elsewhere in the minute book. The company borrowed money directly or through the sales of bonds, as a legal entity in its own right.

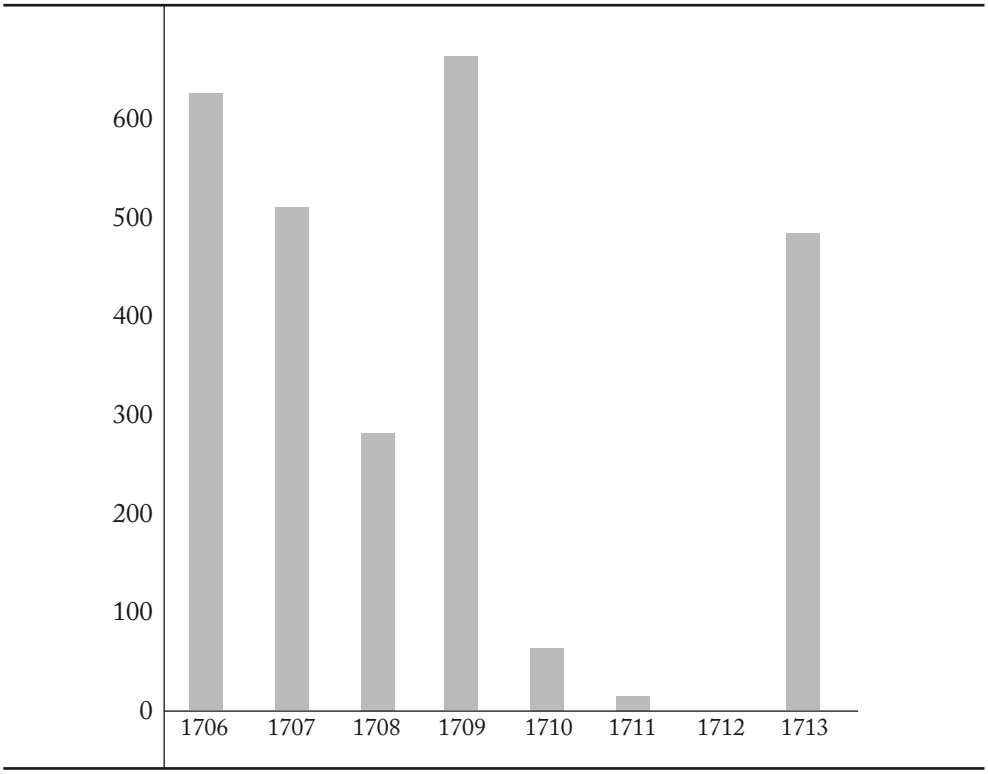
The term, specie bond, implies a lending arrangement backed by specie. The company shipped specie from the Americas and the term may refer to these shipments. The

exact nature of specie bonds is made clearer in an earlier record from 5 March 1707/8 (i.e. 1708 in the Gregorian calendar). A specie bond offered 'common interest' and two per cent. The records state that the company may have difficulty in honouring the bonds when they fell due, or being able to renegotiate on moderate terms. Instead the company offered holders of specie bonds the opportunity to convert them to 'common bonds', with an advance of '25 l. per cent'. This money was to be considered as 'Bottomree', i.e. a special form of loan relating to shipping. Payment was to occur when certain named RAC ships docked. This type of arrangement is somewhat similar to the Royal Navy's rules of settling accounts per voyage after the voyage had ended.

The RAC, like all joint-stock companies, was a hybrid between a private company and a government department. It operated on a far smaller scale than the Royal Navy, or even another trading company, the East India Company. It faced many of the problems of supplying ships faced by the Navy Board and the Victualling Office. The navy and the RAC both faced financial difficulties. Naval contractors were often up in arms about unpaid bills. Eventually the Navy's debts were incorporated into the fledgling South Sea Company. The Navy had to be kept supplied with goods and with men, no matter what. The RAC had found that its rights were subject to political expediency, and its trade began to suffer. It might be expected that the RAC's experience of contractors would be similar to the navy's. The company appeared to have maintained its creditworthiness and had several longstanding relationships with contractors. It had to issue bonds instead of cash for certain traders. However, it did not seem to fall into the lengthy arrears common in naval expenditure.

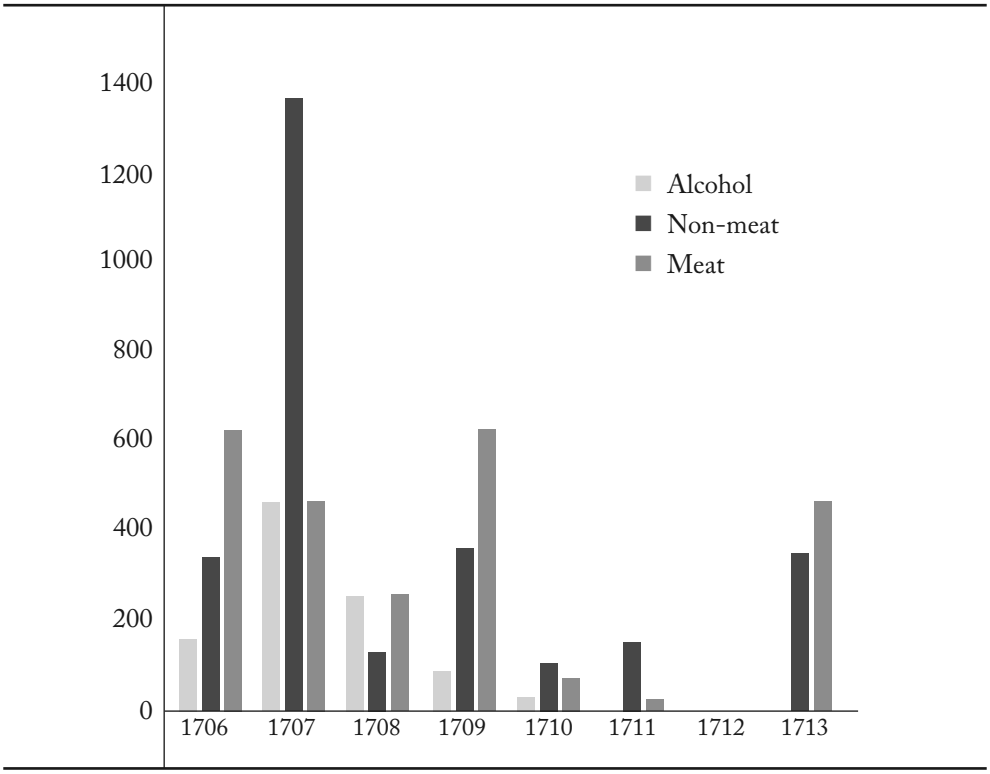
Ultimately, it is hoped to cross-reference the list of RAC contractors with a list of naval contractors. The famous name of Sir Ambrose Crowley, iron manufacturer, does not appear as frequently in the RAC books as might have been expected. The study of contractors of the RAC can give insights into the economy surrounding supply to trading ships, and possibly also to naval ships. It would be interesting to know how many contractors were largely dependent upon the navy, and therefore obliged to accept payment in arrears. Otherwise, for some goods and services there might be more sense in selling to the open market. For specialist goods, such as anchors, that market might be limited. There were frequent complaints about the navy and its contractors. It is interesting to use a trading joint-stock company as a comparison case. The RAC did have its own financial difficulties, and it too was worried about the quality and timeliness of its supplies.

Figure 1. Payments for meat (deflated using Schumpeter-Gilboy)



Source: PRO T70/88. Nominal prices deflated using Schumpeter-Gilboy consumer price index (minus cereals) from Mitchell (1971:468).

Figure 2. Payments for meat (deflated using Schumpeter-Gilboy)



Source: PRO T70/88. Years converted to start 1 January and prices decimalised.

Bibliography

I. Primary Source

T70.88 Minute Book of the Royal African Company for the years 1705 to 1713, held at the PRO Kew, London.

II. Secondary Sources

BREWER, J. (1994). *The Sinews of Power: War, Money and the English State, 1688-1783*, 2nd edn, London: Routledge.

CARLOS, A. M.and J.B. KRUSE (1996). "The Decline of the Royal African Company: Fringe Firms and the Role of the Charter", in *The Economic History Review* 49, no. 2, pp. 291-313.

DAVIES, K.G. (1970). *The Royal African Company*, New York: Atheneum.

FLINN, M.W. (1960). "Sir Ambrose Crowley and the South Sea Scheme of 1711", in *Journal of Economic History*, 20, 1, pp. 51-66.

KNIGHT, R. and M. WILCOX (2010). *Sustaining the Fleet, 1793-1815: War, the British Navy and the Contractor State* (London: Boydell and Brewer).

MERRIMEN, R.D. (ed.) (1961). *Queen Anne's Navy: Documents concerning the administration of the Navy of Queen Anne, 1702-1714*, London: The Navy Records Society, vol. 103.

O'BRIEN, P.K. (2005). *Fiscal and financial preconditions for the rise of British naval hegemony, 1485-1815*, London: London School of Economics EH working paper 91/05.

PAUL, H.J. (2008). "Joint-Stock Companies as the Sinews of War: The South Sea and Royal African Companies" in TORRES SÁNCHEZ, R. (ed.). *War, State and Development: Military Fiscal States in the Eighteenth Century*, Navarra: EUNSA, pp. 277-294.

Buying supplies from your enemy or how the French navy stocked up with products from the North in the eighteenth century

13

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France, as did her neighbours, bought raw materials from Northern Europe. Her shipyards needed planks from Prussia, masts from Riga, tar from Finland and hemp from Russia. Furthermore, her winegrowers needed oak wood from Pomerania and Poland, her fishing industry Norwegian fish roe for bait, her cloth industry Courland flax seed and her iron industry Swedish iron bars, etc. During the cereals crises, Northern resources were vital in order to satisfy national requirements. According to the balance of trade figures, these purchases represented 7.4 per cent of the total of French imports between 1721 and 1740, 11.8 per cent between 1761 and 1780 and 12.8 per cent from 1787-1789. Even though France had considerable resources for naval ship-building, these were insufficient and she, as did the other great European powers, had to call upon supplies from the whole of the Baltic area.

France was an exception in Western Europe in that she exported more than she imported. The positive nature of her trade balance with the North resulted from her sales of wine products, the kingdom's traditional export, salt and particularly the new colonial goods. In this way, France had the advantage in organising trade with the Northern countries since she had potential cargoes available for the outward voyage as well as the return trip whilst her Dutch and British competitors were, for most of the time, obliged to go to the Baltic in ballast. Moreover, this situation improved throughout the century: her exports increased by 491 per cent between 1721 and 1740 and she was in first position as supplier to Hamburg and Bremen. So, the wide variety of requirements in the North was compensated for by a great demand for French products by Northern countries during the same period: 8.2 per cent of total exports between 1721 and 1740, 21.3 per cent between 1761 and 1780 and 33.6 per cent

from 1787 to 1789 (Jeannin, 1975). Although the figures collected by the French administration are open to criticism, they do however convey a general tendency: the increase in French exports to the North and the positive nature of these exchanges for the French economy.

The organisation of the exchanges belonged theoretically to two partners in a context of interdependence between the markets. However, although these exchanges were expanding, France took no part in trade with the North in the eighteenth century, her flag hardly ever seen in the Baltic and most transactions went through the indispensable Dutch middleman or through the foreign trade networks. French difficulties in playing a major role in Baltic trade met again with the French Navy which had great problems getting supplies from the North. This paper presents and explains the difficulties of French trade in the North, particularly those of the Navy.

1. The reasons for the absence of French commerce in the North

Traditionally, several reasons have been put forward to explain the weakness of French trade in the North. As regards sea traffic, this was in the hands of foreign ships, in particular the Dutch as their freight charges were much lower. The commonly accepted idea was that French sea traffic was much less competitive than that of its competitors for different reasons.

French ships were expensive but this fact is in itself the consequence of the poor French presence in the North (Bamford, 1954: 207-219). Raw materials for shipbuilding coming from the North were handled by foreign middlemen, in particular Dutch who made their profit from these transactions. On the other hand, Dutch construction methods made it possible to build ships capable of carrying large loads and at reduced costs. The solution was to buy ships in Holland or Sweden which was, moreover, current practice. In 1720, the *Compagnie des Indes* (French East India Company) rebuilt its fleet through buying vessels in Amsterdam and Hamburg.

The second reason: French crews were larger. Since the end of the seventeenth century, the maritime laws introduced by Colbert required the presence on board ship of a certain number of ship's boys and novices in addition to the basic ship's crew. The various archival sources which give information concerning the crews of different European fleets indicate that there were actually half as many sailors on Dutch ships as compared to their European neighbours. On the other hand, French ships had crews comparable to those of the Scandinavian fleet, a very active fleet whose growth

was superior to that of the Dutch in the eighteenth century. It was not, however, always advantageous to have smaller crews as this slowed down manoeuvres and lengthened loading and unloading time in port.

Final reason: the French sailor was expensive to employ. Many reports indicate that foreigners were content with little whilst the French wanted fresh food accompanied by wine and brandy. The French historian, Michel Morineau, has clearly shown that this was a stereotype and that food rations for European sailors were similar (Morineau, 1985: 37-47). Another stereotype is to maintain that French seamen were better paid than their neighbours. In fact, the highest pay seems to have been, in decreasing order, that of British,[1] Dutch, French and Danish sailors. This salary scale explains why many Scandinavian or French seamen sailed on ships of the Dutch Republic.

Concerning the trade aspect, other reasons have been put forward such as the absence of trade treaties. This is particularly true as regards Russia, though the Dutch Republic which had no treaty with this country were very active in their trading there. As a rule, the French merchants who set off on the adventure into the Northern seas recorded that their attempts generally resulted in financial loss. For them, the North became synonymous with low profitability traffic. In fact, the profits obtained from trade with the North were equal to those of other sea traffic such as the important colonial trade (Pourchasse, 2003).

These assertions, if they are all true, are not enough to explain the absence of French trade in the North and it is necessary to look for other explanations. Why did the French not succeed in a trade where their British, Dutch or Scandinavian neighbours proved to be so active?

2.1. French trade's lack of ambition

Trade with the North was carried out on commission. Each merchant needed to have complete confidence in his agent and therefore had to choose him very carefully before taking on business in the best of conditions (Wegener Sleeswijk, 2000: 29-45). Without being a specialist, the latter had to know how to judge the quality and price of the goods with which he was concerned. He had to supply the information necessary to enable his principal to know of the opportunities available in the markets.

1 Archives Nationales, Paris: B1 485, 23 Jun. 1744.

As we are always more wary of strangers than of our fellow citizens, the Northern merchants sent their fellow countrymen or members of their families to the town where they were doing business. The Dutch Republic led the way. Dutch merchants avoided local agents and all forms of indirect contact, counting on their own network of factors (G. Martin, 1928), often members of merchant dynasties sent out from the Republic (Israël, 1989). In France, following the Dutch, the Germans arrived in great numbers. The Scandinavians set up less often but their consular system ensured a well-structured system of agents in the ports in which they were interested. The French watched their trade with the North grow with interest and encouraged the establishment of these communities. All French ports, even the small ones, had German, Dutch, Danish and Swedish colonies.

These foreign firms took charge of French exports to the North. The merchants of Bordeaux '*preferred on the whole to leave trade management to the foreign colonies based in Bordeaux since the seventeenth*' (Butel, 1978). The German colonies supplied Hamburg which became the new middleman between France and Northern and Central Europe. This new organisation enabled foreign merchants to control all processing and commercialisation of the products from and to Northern Europe and to increase their profits at the expense of French trade.

In all the Baltic countries the Dutch as well as the British with their famous "merchant adventurers" had for a long time had solid networks. These first foreign establishments were explained by the most essential requirements. France was blessed with natural and agricultural wealth much greater than that of her neighbours and, therefore, did not become interested until much later and on a much smaller scale than her competitors, in products coming from the Baltic.

As in the example of Saint-Petersburg '*circuits and networks found themselves regularly dominated by tenacious groups which took them over and by banning others from using them if necessary*' (Braudel, 1979: 129). This remark could be applied to French trade in the North. Writers of reports on trade in the North knew it: '*The problem began long ago. It has grown considerably since the withdrawal of the Protestants who, through their opportunities and reiterated offers of service, had attracted commissions from the kingdom's smallest merchant*'.[2] The Northern markets were controlled by these foreign and Huguenot groups who fiercely protected their "private zone". It appeared to be a very risky adventure for a French merchant to set up business in these countries.

2 Archives Départementales de Loire Atlantique, Nantes: C 754.

The British firms in Saint-Petersburg formed a "formidable colony", grouped into an association which they financed through subscriptions. The aim of the colony was to defend the interests of the group and to stop any intrusion by another community which would be prejudicial to its activities. According to French businessmen, Britain profited from their poor representation in the Northern markets by denigrating French products and trade. The "disinformation" regarding French trade appeared to be normal in these communities established in foreign ports. British businessmen, therefore, falsified bills of goods which passed through the Sound or gave wrong information regarding the destination of the ships. The aim of this was to convince the Russians that Britain was their main client and that other European nations were of little importance (Fox, 1968: 481-98). In this way, the British '*threw an impenetrable veil over the eyes of the Russian nation regarding our consumption* (that of France) *of goods from this country*'.[3] According to Arnould, the French even sometimes complained that the British bought goods they did not need just to deprive them of these purchases.[4] In order to keep the privileges for her merchants, '*the British minister redoubled their activities; many of this nation's merchants lavishing, on the side, gifts, favours or found the means of making the export tables for Saint-Petersburg increase and toning down those for imports*' (Ségur (de), L.-P., 1826).

Maritime trade was the main element in the setting-up of merchant communities in foreign ports: *'men followed the ships'* (P. Léon and C. Carrière, 1978:194). France had a solid basis for success in trade with the North thanks to its exports but its ships rarely went there and so, the Baltic *'knows our products but has hardly ever seen our merchants'* (Bamford, 1956: 143).

There were very few French firms in the North. In Russia, only three were registered in the 1750s: Godin, Michel and Raimbert. If these firms had many plans to develop trade between France and Russia following the example of the introduction of tobacco from the Ukraine to replace that from Virginia and Maryland, they lacked solid financial bases, were unable to undertake large-scale operations and therefore, unable to prosper. In 1778, the consul in Saint-Petersburg pointed out that, *'Michel's profits remained low but that was not known until after his death; As for Raimbert, he was not*

3 Archives Nationales, Paris: B7 414, 8 Feb. 1761.

4 Arnould. (an III), *De la balance du commerce et des relations commerciales extérieures de la France dans toutes les parties du globe particulièrement à la fin du règne de Louis XIV et au moment de la Révolution*, Paris, An 3e de la République, vol 1.

rich either'.[5] He added that, if he returned to France, he would not do business with any of the French firms in Russia.

The other Baltic ports had no French firms of any size. In Hamburg, it appeared difficult for French firms to set up. Those who wished to do so had two solutions: either to become part of the *bourgeoisie* of the town (to be granted citizenship and to become Lutherans) or to sign a contract to obtain, against payment of taxes, authorisation to trade. The only truly French firm which set up in the Hanseatic town was that of Grou & Michel of Nantes which set up a branch there in 1734. In 1742, it was responsible for almost one third of all imports to Hamburg from Nantes (Treutlein, 1970: 138). The firm never stopped complaining about the total of duties it had to pay but, according to the French consul, excessive taxes *'should not, however, exceed those that the bourgeois and other inhabitants pay*'.[6]

Apart from tax problems, French merchants do not seem to have been welcome in the Hanseatic town where the authorities were not in favour of foreigners settling, *'so that all trade remained in the hands of Hamburg merchants established in France though living here'*.[7] The success of the firm Grou & Michel gave rise to a certain amount of jealousy and their employees were *'looked at askance'* while the British and the Dutch there were *'in great favour'*[8].

So, in the eighteenth century, the French merchants who settled in the North had little scope and only participated in a small way in exchanges. The important position of the French Huguenot community in the North refutes this assertion but the action of this community was not an advantage for France. The Huguenots locked into the markets and carefully controlled information to prevent the arrival of competitors from their homeland. Although the Huguenots often retained their native nationality and took part in the development of French maritime trade, they were not French merchants. They formed a supranational community whose common interest was trade.

It was generally agreed by the merchants that it was impossible to compete with the Dutch, British and Scandinavian fleets and trade networks in trading with the North and, rather than lose money it was better to leave this traffic alone: '*Each French*

5 Archives Nationales, Paris: B1 988.

6 Archives Nationales, Paris: B1 620, 29 March 1763.

7 Archives Nationales, Paris: B1 607, 17 Oct. 1740.

8 Archives Nationales, Paris: B3 419, 18 Sept. 1741.

merchant only having to look after his own particular well-being always preferred a Dutchman to a Frenchman as he got cargoes at a better price with the one than with the other. This led to the rule found everywhere, apart from Britain, to use the services of the Dutch for coastal traffic'.[9] The foreigners, strong in their position, organised the trade so efficiently that it made it very difficult to compete with them. Faced with this situation, how did the authorities react?

1.2. The French authorities' incoherent policies: the example of consular services

For Britain and the Dutch Republic, the North was in the nature of an economic confrontation. As a result, the authorities set up efficient institutions and the means to favour trade and shipping. The French authorities did not have the same understanding of the existing economic reality.

France, like all the great powers of the eighteenth century, possessed a network of consuls throughout Europe. In a world where communication was slow and sources of information highly valued, the work of the consuls was of prime importance in informing the commercial world of the situation in foreign markets.

France's consular network in Northern Europe where she only had seven consulates (Trondheim, Bergen, Elsinore, Hamburg, Gothenburg, Saint-Petersburg and Danzig) was underdeveloped. The consuls had the power to appoint vice-consuls when they required help in the secondary ports of their department or for other particular needs. In the Northern ports, at one time or another, vice-consuls existed in Lübeck, Riga, Rostock, Christiana and Marstrand, etc. For example, in 1756, a vice-consulate at Christiansand was created because it was '*a convenient port to which to take prizes captured in the North Sea*'.[10]

The choice of consuls was not always easy and it sometimes happened that the people chosen were singularly lacking in the necessary skills. James Brown, French consul in Trondheim between 1758 and 1767, was noted for his inability to serve national interests. First of all, he did not speak French which led to his '*incapacity to correspond with the merchants*' that he represented. Following that, he showed very little enthusiasm in his business with France. During the 1760s, he was made responsible for a commission

9 Archives Nationales, Paris: B3 419, 27 Aug. 1775.

10 Archives Nationales Paris: B1 452, 1756.

on brass-purchasing for French merchants but '*he was so slow, so ready to find drawbacks in carrying this out, he loaded this part with such heavy costs and the brass was so badly chosen that the French were too disgusted to place another order and so deprived us of any profitable follow-ups that we might have had if our requests had been followed to the letter*'.[11] According to Ogier, the ambassador in Copenhagen, James Brown, '*a native Englishman, a narrow-minded man with no connections with French ports*' was unable to maintain or favour French trade. As a result, as he was '*absolutely incapable of filling this post usefully to the advantage of the country*', he was replaced.[12]

The absence of interest in maritime trade or the financial difficulties of the French state sometimes had troublesome results regarding the running of the consular services. The post at Elsinore was characteristic of the negligence of the French authorities regarding trade interests. The town was of vital importance, as much on a strategic as on an economic level, because it commanded the entrance into the Baltic and was where customs duty for the Sound had to be paid and where all merchant ships put into port. Commercial activity there was considerable. The ships came in to get their orders and all the important trading firms had their agents there. A report of 1728 states that there '*was no French consul in Copenhagen neither in any other Danish port because the king's subjects did not carry out any trade there. At Elsinore, there was only a vice-consul representing the country called Hanssen. However, Mr de Rochefort had been appointed to take up residence at this most important port but he had deemed that such a stay would be useless and he had been allowed to live in Hamburg until further notice*'.[13]

In August 1760, Jean-Georg Hanssen, between-times made consul in Elsinore, died. The merchant Conrad Hanssen, son of the defunct consul and '*extremely well-off*'[14] proposed replacing his father but the authorities decided to defer his replacement as French trade in the Baltic was suffering from great lassitude and a consul was not, therefore, necessary. Ogier, the French ambassador in Copenhagen, insisted upon the vital need of a consulate in order to certify the bond-notes and to repatriate French seamen from the Baltic, etc., but the authorities remained inflexible[15]. The post was not filled until September 1776 that is sixteen years after the death

11 Archives Nationales, Paris: B7 425, 1766.

12 Archives Nationales, Paris: B1 452, 16 Oct. and 20 Nov. 1766.

13 Archives Nationales, Paris: B1 451, 18 Dec. 1728.

14 Archives Nationales, Paris: B1 452, 25 June 1776.

15 Archives Nationales, Paris: B1 452, 26 Aug. 1760.

of Hanssen. Between-times, '*French merchants had no one of their country in Elsinore. In order to pay the duties required, they had to apply to the local merchants whose main business consisted in this type of commission. We can assure you that we know nothing more revolting than the cupidity of these brokers. No problems with the customs people because their commission duty grows in proportion to the sum paid and they arbitrate the valuation of the rate of exchange, of which we have received some frightening reports filled with heavy false costs*'.[16] Guillaume-François de Brosseronde, secretary to the French embassy in Copenhagen acting as *chargé d'affaires* during the absence of the ambassador, obtained, as a reward for services rendered, the post at Elsinore (Mézin, 1997: 33). Newly promoted, he appears to have had some difficulties in carrying out his duties because, as he pointed out himself in 1778, '*as all business here is done in the Danish language which I do not understand at all … I have had to call upon translators*'. He was therefore obliged to take on '*Mr Didier Perrot, a Frenchman who speaks Danish and German very well*'[17] in the chancellery of his consulate.

This lack of ambition was again found in the creation of a post in Berlin which could have centralised correspondence between the '*French consuls, agents and merchants established in Riga, Königsberg, Danzig, Lübeck, Hamburg, Copenhagen as well as other ports and other towns in Germany*' as suggested by the diplomat de Villardeau in 1734.[18] In this case, as usual, no creation is planned due to the financial difficulties of the state.

The running of French consulates in the North was an example of the lack of ambition by the authorities to build real networks with the aim of organising bases for active trade with Northern Europe. The usual explanation was that there was no need to set up a consul in a place where the French did no trade.[19] The supply of naval stores was subject to these insufficiencies in French trade in the North.

2. The supplies for the French Navy from Northern Europe

From the eighteenth century onwards, the Navy became an essential element in the major European wars. The great powers equipped themselves with a network of

16 Archives Nationales, Paris: B7 426, 1 Aug. 1767.

17 Archives Nationales, Paris: B1 485 reg 1, 11 May 1778.

18 Archives Nationales, Paris: B3 418, July 1734.

19 Archives Nationales, Paris: B3 418, 28 June 1725. *'There is no French consul in Swedish ports because the king's subjects do virtually no business there'.*

dockyards which produced more and more ships. Naval dockyards used three basic materials: wood, hemp and iron. These three indispensable materials represented 80 to 90 per cent of the products necessary to shipbuilding. Local products were available but, with the increase in the fleets, supplies from the exterior became vital. Northern Europe, with its abundant supply of these basic products stood out as the favoured area for naval supplies to the West. Even though France had considerable resources for naval shipbuilding, these were insufficient and she, as did the other great European powers, had to call upon supplies from the whole of the Baltic area.

In modern times, the French Navy is considered as an auxiliary service and the favours granted to it by the authorities vary depending on ministers and circumstances. During the period 1713-40, maritime power was neglected. The naval setbacks suffered during the Austrian War of Succession led, however, to attention being given to the problems of the fleet and a larger budget was granted to the Royal Navy. Between 1748 and 1758, French dockyards built 52 ships of 64 canons and more. Following the recent defeat of the Seven Years War, a new effort was made to equip France with a Navy worthy of its political ambitions. The renaissance of the French fleet was illustrated by its victories during the American War of Independence. Thus, the purchase of supplies varied considerably and represented a real barometer of royal favour towards the Navy. This fluctuating policy of the French authorities was a constant source of worry.

2.1. Stock management little by little

The financial difficulties of the kingdom of France were shown by cuts in military expenditure and the Navy was particularly affected by these financial restrictions. During the winter of 1747-1748, the needs of the arsenals came to 13 millions *livres-tournois* but the minister reduced their request to 6,5 million (Pritchard, 1987: 162). In 1758, during the Seven Years War, the Navy received 42 million *livres-tournois* for expenditure amounting to 55 million (Legohérel, 1965: 186). The budgets, always insufficient, were drastically reduced by the debts of the previous years. The acquisition of naval stores was conditioned by this chronic lack of funds which weighed heavily on the capacities of the arsenals to build ships and maintain a fleet.

The financial difficulties were translated by the absence of any long-term policy and by very poor stock management, particularly as regards naval supplies from the Baltic. No estimates existed and the authorities behaved as if they were waiting for

war and, as a result, prices rose and transport was difficult for bringing fresh supplies in. France embarked upon the Austrian War of Succession with her stores empty (Duval, 1959: 201). In 1750, Brest requested thousands of masts and spars, hemp, tar and almost a thousand canons.[20] In 1751, on the other hand, deliveries of wood to the arsenal at Rochefort were so large that they could not all be stocked and the director asked for deliveries to be suspended.[21] In September 1753, Brest was inundated with common planks and the director declared that he had enough for ten years of normal consumption.[22] However, in 1778, at the beginning of the American war, there were scarcely enough masts in stock in Brest for one year of conflict.[23] Following the American War of Independence, measures were taken to organise purchases from the North in peacetime in order to avoid shortage of supplies and to acquire goods at reasonable prices. The aim was to create stocks of masts enough for four years' demand. Large funds were clearly necessary for this project but the state of French finances left little hope for such an ambitious programme.

In order to obtain the materials necessary to build ships, the French Navy used middlemen having obtained a contract between the suppliers and the arsenals. There were two reasons for this system (Pritchard, 1987: 160). First, the authorities did not have the skills necessary to organising commercial operations concerning the wide variety of products it needed. Secondly, the Navy Department did not have sufficient financial resources and its credit was limited in the naval supplies markets. In fact, the chronic lack of means obliged the arsenals systematically to hold back settlement of accounts and to pay over the long term which is very difficult to negotiate with any profit. During the years 1756-57, the Danish Consul on the Ile-de-Ré, who acted as a middleman between Norwegian merchants and the arsenal at Rochefort, had to wait five years to obtain settlement of his bills.[24] Merchants balked at accepting such financial risks and did little direct business with the French Navy. In 1727, an important Hamburg merchant declared that he *'didn't bother about making such deliveries because the risk was much greater than the profit'*.[25] So the rich financiers, well-placed at Versailles, took over the supplies to the arsenals up until the end of the *Ancien Régime*.

20 Service Historique de la Défense, Brest: 1 E 504, f° 152-159.

21 Service Historique de la Défense, Rochefort: 1 E 379, 49

22 Service Historique de la Défense, Brest: 1 E 506, f° 54-55 et 61.

23 Archives Nationales, Paris: D3 8, fol. 107

24 Rigsarkivet Copenhague: Kommercekollegiet 302.

25 Archives Nationales, Paris: B1 451, 29 July 1727.

These suppliers grew richer both through supply contracts and, at the same time, by participating in financing the fleet. In one way, they offered their funds to the State so that this would favour their business. In this way, the firm Beaujon, Goossens and Company loaned 44 million to the State, 36 of which were destined to finance the Navy of which it was one of the main suppliers (Bosher, 1986: 115-133). These businessmen were above all interested in the opportunity to do good business. They showed little interest in setting up trade networks and usually dealt through Dutch merchant middlemen. In order to avoid financial risk, they raised the stakes and the Navy usually had to pay prohibitive prices for its supplies. If the rates in the North were too high, purchases were suspended or poor quality goods delivered. Thus, during the American war, deliveries of naval supplies from the Baltic suffered an exorbitant increase in price: that of masts tripled between 1775 and 1778 (Corre, 2003).

To reduce these charges, the French Navy often directed the policy regarding the arsenals towards the strategy of the poor that is, repairing ships rather than building new ones. This could cost very dear in battles at sea. In 1747, a whole squadron disappeared off Cap Finisterre because *'the planking and the ships' masts, repaired too quickly could not stand up to the British canon'* (Duval, 1959: 204).

Another consequence: the traditional rules regarding the quality of supplies disappeared. Purchase orders for masts at Riga were usually placed at the end of summer or at the beginning of autumn for delivery to the Latvian port at the end of spring or beginning of summer. Late orders found themselves relegated to the bottom of suppliers' lists and sometimes were difficult to honour. As the French Navy always placed its orders very late,[26] these were dealt with after those of other countries and the quality of the goods greatly affected. Reception of goods from the North gave rise to continual complaints. In 1750, the masts delivered to Brest were almost all rejected. In 1780, out of 500 masts and 223 spars examined in Amsterdam, 297 masts and all the spars were declared unfit for use by the Navy.[27] These pieces were defective right from purchase because the report shows that they were knotty, twisted, bent and not of the correct proportions. If the arsenals drastically reduced their prices, the suppliers had already taken account of this possibility in their rates. Large size masts, products becoming scarcer and scarcer and more and more expensive, did not come into French

26 Archives Nationales, Paris: Marine D3 8, fol. 108 et B1 99, fol. 36.

27 Archives Nationales, Paris: B7 443, 16 Nov. 1780.

ports. The only masts received by the French Navy were those of small dimensions and of little use for large ships. The arsenals were obliged to construct jointed masts which were costly and less reliable.

Conversely, the British arsenals managed their stocks very well. Orders were placed at the right moment and bills paid, depending on the clauses stipulated in the contracts. After 1776, the Navy gave orders to its agents to buy above market prices to get the best possible goods. In 1784, according to one supplier, '*British and Spanish trade is excessive. These two nations cause the stocks forecast to be held back from one year to another. They buy them at any price to ensure they get the best and do not hesitate to pay large sums on top of the exorbitant prices offered*'.[28]

If the poor quality of deliveries was a constant worry for the authorities, the latter needed to face up to the break in trade routes with the North during the conflicts.

2.2. The breakdown in French trade in war time

During the wars, the British Navy methodically made every effort to stop all ships from the North getting to France. From then on, the route to the Baltic was a real adventure for a French ship and very few risked it. The neutral powers also ran a great risk in sailing to French ports. As a result, the arsenals of the French Navy had enormous difficulty getting supplies during these conflicts. Ship designers were obliged to pay strict attention to the way in which they used wood as they could not be certain of obtaining the products necessary to construction. In 1746, during the Austrian War of Succession, the director at Brest declared that the planks and masts stocked in the arsenal must, from then on, be used *'judiciously and economically'* (Duval, 1991: 775-786). During the Seven Years War, the arsenal at Rochefort lacked both wood and iron to finish its new ships.[29]

The situation became even more difficult during the American War of Independence. In 1778, Britain decided upon a total blockade of French ports. The Navy ships and British privateers had orders to seize all neutral ships transporting naval supplies destined for France. In order to pacify the Northern powers which she needed, because she also got her supplies there, the British Admiralty bought all naval supplies loaded

28 Archives Nationales, Paris: Marine B1 99, 10 Dec. 1784.

29 Service Historique de la Défense, Rochefort: 1 E 420 n° 88.

into the neutral ships headed for a third country. From then on, British shipyards were overloaded with raw materials, not always of very good quality. In 1779, the British Navy Minister voiced his opposition to these purchases which, due to their poor quality, *'are unusable, either by us or by our enemies'* (Albion, 1926). Some Northern suppliers, the Norwegians for example, profited from this situation and loaded their ships with goods difficult to sell then arranged for them to be taken by British privateers.

The North Sea was thus no longer safe for ships loaded with naval supplies for France. At the start of the war, two Dutch ships carrying hemp for France were intercepted and sent to London. Pressure by British privateers was so strong that the French consul in Amsterdam organised, from 1778, the unloading of cargoes at Dutch docks. In April 1781, the Minister for the French Navy informed the arsenals that several Dutch ships loaded with 1,100 masts had been captured by the enemy.[30] It became impossible for ships to reach France, while wood stocks piled up in Holland. In Brest, in May 1780, the lack of staves for cooperage meant that this workshop could no longer function properly and compromised the whole of the shipments. In June, it was hemp for ropes which was running out of stock and there were only a few copper sheets left (Corre, 2003: 656). Transport by sea was impossible. Dutch captains were not agreeable to risking their lives and jobs transporting goods between Holland and France. The French navy was faced with a serious dilemma as is seen from the document which shows us the incredible paradox of this situation:

> *masts bought in Riga last year (…) are still held up in Holland, the ships which had loaded them having been forced to leave them there (…) to the value of 316,143 livres (…), the order has been given to sell them with as little loss as possible, but the Dutch Admiralty (does not intend) to pay more than a very low price for them and they would be sold for less at public auction in view of the break in trade (…), the merchants suggest sending them to England to be sold to get more or less of a loss out of them: this would be more advantageous as regards the present shortage of funds for the Navy as, with the resulting money, we could buy other goods which we could bring in under the Prussian flag. However, as it may appear very strange and against our policy to carry supplies to the enemy (we will request the King"s agreement); by pointing out that, selling these masts to the Dutch or directly to the British, it comes*

30 Archives Nationales, Paris: Marine B1 92, 25 Sept. 1779.

to the same thing and that, in order to save face, we will lose a lot (Le Roch'Morgere, 1997: 53-71).

Minister de Sartine then had a most original, though exceedingly complicated, idea. He decided to have the masts held up in Holland brought by land (Reussner, 1947). In July 1781, a first test load was organised. By the end of the year 1781, almost 2,000 masts had arrived at the mouth of the Loire and were delivered to the King's arsenals. It had taken them six months to get to their destination while only ten days would have been needed by sea. However, the goal had been achieved and the arsenals functioned more or less normally. The feat had been carried out but it was only due to France's inability to protect the trade routes she needed in time of war.

If the supply to arsenals was impossible in wartime due to the British naval blockade, the invasive British presence in the trade of strategic goods from the North was another permanent worry for the French authorities.

2.3. Inescapable British commerce

The British enjoyed an enormous advantage over the French due to their presence in all Northern ports. In Riga, the British firms did not work through the town's middlemen as was the rule, they dealt directly with suppliers from the interior. In order not to break the laws officially, front-men were used with the agreement of the Russian government (Handrack, 1932). Their competitors were disadvantaged because they had to go through an extra local middleman. If the French supplier went through Amsterdam, as frequently happened, another middleman intervened in the market. The great number of these middlemen raised the cost of the goods considerably.

In Saint-Petersburg, British domination was even more marked with more than 60 per cent of exports in the hands of British merchants. The trade treaties of 1734 and 1766 placed British merchants high in Russian trade. These treaties authorised them to pay customs duties in Russian currency while their competitors had to pay half in local currency and half in Dutch rixdalers whose rate of exchange was very poor (Cadot, M. and Van Regemorter, J.-L., 1970). These advantages, greatly overvalued by French merchants, allowed them however to reduce the costs of their commercial operations.

The British were the masters in Russian business and most western buyers used their services. Masts destined for the French Navy passed through their hands. A

French diplomat remarked that, in Saint-Petersburg, *'the British here are still the agents and bankers for France'*.[31] A report of 1776 noted that '*it is common knowledge that French orders are placed directly or indirectly with British houses... that British merchants are instructed to carry out in Riga, Saint-Petersburg and elsewhere the purchase of hemp, masts, timber and other naval requirements necessary to supply the King's Navy*'.[32]

In 1750, Goossens, Chaussade and Michel signed an agreement for naval supplies with the *Compagnie Generale de Commerce* of Copenhagen which bought its products from the British in Riga (Bamford, 1988). The following year in 1751, the contractors bought direct from the British firm Wale, Fraser & Co, the most important merchants in the Riga market place, regular supplier of supplies to the Navy, and in second place, from the Latvian firm Heidtwinekell & Newell (doubtlessly of British origin).[33] The agent for the *Compagnie des Indes* (French East India Company) in Riga was the British firm Wale, Fraser & Outcherlony. They supplied Lorient with hemp through Thomson, Peters & Co., its agent, also British, of Saint-Petersburg. During the war with America, the supplier of goods from the North obtained part of its purchases of masts through the British firm Wale, Pierson & Collins[34].

These firms naturally made little effort to provide for the needs of the French. If the French Navy had great difficulty in getting hold of good quality masts and spars during the American war, the British received 698 tall masts during 1775 alone and in 1777-78, they got hold of parts of a size never obtained by the French arsenals. During the war, the French realised that they were disadvantaged: the firm Wale & Pierson became suspect and Collins declared as opposed to French interests.[35]

Even the Dutch, as reported the resident for the Dutch Republic in Russia, *'made almost all of their purchases through the British firms'* in Saint-Petersburg (Bamford, 1956). In 1757, a French merchant denounced the practices of *'those who had these orders (for naval supplies) carried out by a minister of the Dutch firm which referred them to the British established in the aforesaid Saint-Petersburg, in this way depriving the King's subjects of a legitimate fortune and enriching His Majesty's enemies*'.[36] The firm Thomas

31 Archives Nationales, Paris: B7 425, Espagne-Nord, 31 Dec. 1765.

32 Archives Nationales, Paris: B7 425, *Mémoires sur la possibilité, la sûreté, l'utilité et les moyens d'établir un grand commerce dans le Nord et principalement avec la Russie*, de Gilly, 3 April 1766.

33 Archives Nationales, Paris: Marine, B3 509, fol. 530.

34 Archives Nationales, Paris: B1 99, fol. 35-41.

35 Archives Nationales, Paris: D3 8, fol. 108.

36 Archives Nationales, Paris: B1 609, 18 July 1757.

& Adrian Hope of Amsterdam, supplier to the French Navy during the 1760s was closely linked to Britain, as much at business level as at family level as all its directors were either of British or American origin (Buist, 1974).

In Riga, the masts were sold in lots, the best pieces being mixed with others of poor quality. Merchants who bought these masts usually sorted them out, only sending their western customers the pieces fit for use. In Riga, the scrap was sold on to a British firm which doctored the damaged pieces by using wooden plugs to hide the rotten surfaces or hot resin to enhance the knots. Once the pieces looked good again, they were put back on the market bearing the Riga wholesaler's stamp. These fraudulent deliveries were sent to countries with no representatives in town, particularly the French, and it appears that such pieces were delivered to Brest (Bamford, 1988*:* 77-78).

Conclusion

France was not able to control its supplies coming from the North for financial reasons which did not allow her to set up a long-term supply policy due to the mastery of the seas of Northern Europe by the British enemy.

This situation does not appear to have worried the authorities which adopted a pragmatic policy. In 1752, the *chargé d'affaires* in Saint-Petersburg advised them not to use Dutch agents but rather British firms because the latter had preferential treatment in Russian ports. As a consequence, French merchants *'through this direct trade, not only avoided costs on the first order but gained the double advantage of low prices and better quality'*.[37] In the same way, Vergennes, Minister for Foreign Affairs during the American war declared, when speaking of Russian naval supplies that, *'if we often buy from the British, it is because of the privileges they enjoy, they can supply us at a better price that when we go to fetch them ourselves'* (Rambaud, 1890).

Traditionally, the French State is seen as too interventionist and it is generally admitted that France with its strong interventionist economic policy was in opposition to liberal Britain. This interventionist tradition explained, according to liberal thinkers, the weakness of the French economy (Hirsch, J.-P. and Minard, P., 1998). Trade with the North was shown to be totally opposed to this view of things. If France adopted a strong protectionist policy with its colonial trade where all foreign shipping was excluded, its position with regard to trade with the North was diametrically opposed.

Why did France take up this attitude? The State knew that it could not do without foreigners for trade with the North. The various attempts to build up trade circuits

had all come to nothing. The businessmen took it upon themselves to inform the authorities that, to penalise foreign fleets through customs duties or by other means, was simply to penalise themselves by increasing service costs and by making vital supplies to several branches of the French economy more difficult. This giving up of a part of her important European trade cost France very dear in the century following the disappearance of her protected colonial trade.

Figure 1. Naval stores from the Baltic area

Bibliography

ALBION, R.-G. (1926). *Forests and Sea Power. The timber problem of the royal Navy 1652-1862*, Cambridge.

BAMFORD P.-W. (1988). *Privilege and Profit. A Business Family in Eighteenth-Century France*, Philadelphia: University of Pennsylvania Press.

BAMFORD, P. W. (1954). "French Shipping in Northern European Trade", in *The Journal of Modern History* XXVI, 3, pp. 207-219.

BAMFORD, P.-W. (1956). *Forest and French Sea Power,* Cambridge: Harvard University Press.

BOSHER, J. F. (1986). "Financing the french navy in the seven years war: Beaujon, Goosens et Compagnie in 1759", *Business History*, 28, 3, pp. 115-133.

BRAUDEL, F. (1979), *Civilisation matérielle, Economie et Capitalisme, XV^e^-XVIII^e^ siècle, Tome 3, Les Jeux de l"échange*, Paris: Armand Colin.

BUIST, M.–G. (1974). *At spes non fracta. Hope & CO. 1770-1815*, The Hague: Martinus Nijhoff.

BUTEL, P. (1978). "Les négociants allemands de Bordeaux dans la deuxième moitié du XVIII^e^ siècle", in SCHNEIDER, K. (1978). *Wirtschaftskräfte und Wirtschaftswege, II : Wirtschaftskräfte in der europäischen Expansion. Festschrift für Hermann Kellenbenz*, Stuttgart: Klett-Cotta.

CADOT, M. and VAN REGEMORTER, J.-L. (1970)."Le commerce extérieur de la Russie en 1784 d'après le journal de voyage de Baert du Hollan", in *La Russie et l"Europe XVI^e^-XX^e^ siècles*, Paris-Moscou: SEVPEN.

CORRE, O. (2003). *Brest, base du ponant. Structure, organisation et montée en puissance pour la guerre d'Amérique 1774-1783*, vol 3, Ph. D., Rennes, 642.

DUVAL, M. (1959). "Les bois de marine et la crise des armements à Brest pendant la guerre de Succession d'Autriche", *Cahiers de l'Iroise*, 4.

DUVAL, M. (1991). "Les relations maritimes entre les pays du nord de la Baltique et les ports bretons (1680-1770). Bois de marine et autres matériaux d'armement", *Charpiana*, Fédération des Sociétés Savantes de Bretagne, pp. 775-786.

FOX, F. (1968). "A View of French-Russian Trade Relations in the Eighteenth Century: The Ms. Le Gendre", *Jahrbücher für Geschichte Osteuropas*, 16, pp. 481-498.

HANDRACK, U. (1932). *Der Handel der Stadt Riga im 18. Jahrhundert*, Ph. D., Iena

HIRSCH, J.-P. and MINARD, P. (1998). "Laissez-nous faire et protégez nous beaucoup: pour une histoire des pratiques institutionnelles dans l'industrie française",

in BERGERON, L. and BOURDELAIS, P. (1988). *La France n'est-elle pas douée pour l'industrie ?*, Paris: Belin.

ISRAËL, J. (1989). *Dutch Primacy in World Trade,* Oxford: Oxford University Press.

JEANNIN, P. (1975). "Les marchés du nord dans le commerce français au XVII[e] siècle", in Léon, P. (1975). *Aires et structures du commerce français au XVIII[e] siècle*, Lyon: Centre d'histoire économique et sociale de la région lyonnaise.

LE ROCH"MORGERE, L. (1997). "L'arsenal de Brest au milieu du XVIII[e] siècle", in *Rochefort et la mer. Présence maritime française au XVII[e] et XVIII[e] siècles*, Université Francophone d'Eté Saintonge-Québec, 3, pp. 53-71.

LEGOHÉREL, H. (1965). *Les Trésoriers généraux de la Marine (1517-1788),* Paris: Cujas.

LÉON, P. and CARRIÈRE C. (1978). *L'appel des Marchés*, in *Histoire économique et sociale de la France*, Paris: PUF.

MARTIN, G. (1928). *Nantes et la Compagnie des Indes*, Paris: Marcel Rivière.

MÉZIN, A. (1997). *Les consuls de France au siècle des Lumières (1715-1792)*, Paris: Ministère des Affaires Etrangères.

MORINEAU, M. (1985). "Post-scriptum de la Hollande à la France", in *Pour une histoire économique vraie*, Lille: Presses Universitaires de Lille.

POURCHASSE, P. (2003). *La France et le commerce de l'Europe du Nord au XVIII[e] siècle*, Ph. D., Lorient.

PRITCHARD, J. (1987). *Louis XV's Navy 1748-1762*, Kingston & Montréal: McGill-Queen's Press.

RAMBAUD, A. (1890). *Recueil des instructions données aux ambassadeurs et ministres de France: Russie*, tome II, Paris: Alcan.

REUSSNER, A. (1947). "Voie de terre contre voie de mer. Les transports des mâts du Nord dans les ports du Ponant entre 1778 et 1783", *Neptunia*, 8.

SÉGUR (de), L.-P. (1826). *Mémoires ou Souvenirs et anecdotes*. Tome second, Paris.

TREUTLEIN, G. (1970). *Schiffart und Handel zwischen Nantes und dem europäischen Norden von 1714 bis 1744*, Ph. D., Heidelberg.

WEGENER SLEESWIJK, A. (2000). "La relation problématique entre principal et agent dans la commission: l'exemple de l'exportation des vins vers les Provinces-Unies au XVIII[e] siècle", in MARZAGALLI, S. and BONIN, H., *Négoce, Ports et Océans XVI[e]-XX[e] siècles,* Pessac: Presses Universitaires de Bordeaux.

Contracting and Accounting: Spanish Army Expenditure in Wardrobe and the General Treasury Accounts in Eighteenth Century

14

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The objective of this study is to examine the funds to purchase clothing for the Spanish Army during the eighteenth century and their administration by the General Treasury (from now onward GT) under the authority of the Spanish Royal Finances. We try to establish the relative and absolute importance of the assigned funds under this heading and the diverse means used for contracting, including its legal structure, the payment mechanisms used by the Crown and the accounting control.

The data organization of the national archives forces us to assume certain factors in relation to our study. The data related to the GT expenses is located in the *Archivo General de Simancas, Dirección General del Tesoro, Inventario 16, Guión 24, bundles 1-3* (from now onward AGS, DGT, Invº 16-24, b. 1-3), in a section so-called *"Asientos de lo satisfecho por la Tesorería General a la clase de Menajes y Vestuario (1739-1807)"*. Such *clase* [kind] of equipment and clothing was just one among more than thirty to which the general treasurers distributed the items of their general data during most of the eighteenth century.[1] Unfortunately, this series does not distinguish between the amounts paid for the wardrobe and other items such as artillery, weapons and ammunition. On the other hand, the contracts for the supply of clothing were kept all together in AGS, DGT, Invº 25-1, b. 17 in another section so-called "*Asientos de vestuario y artillería (1740-1790)*". With this information we can choose select examples which refer exclusively to the purchase of clothing.

1 The complete information about all the *clases* in Jurado Sánchez (2006: 157-9) and its description in Torres Sánchez (printers: 8-11).

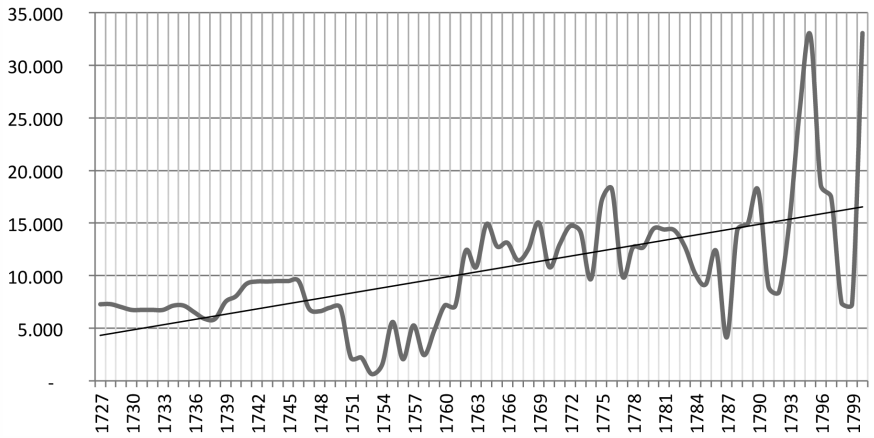
As a result, the first part of our study includes an analysis of the financial importance of wardrobe and artillery together (from now onward W&A). In the second part, we will focus on the study of the contracts for clothing alone, to establish the evolution of its typologies and its relation with the government institutions that financed them.

1. Evolution of the Expense Consigned on W&A

1.1. Analysis and periodization (absolute terms)

The total amount and the evolution of the funds assigned by the Royal Finances to cover our section appear in *Table 1*. The table shows in absolute terms (in *reales de vellón*) the total assigned from 1727 to the end of the century.[2] The global picture demonstrates a certain uniformity because all the amounts are lie between 5 and 15 million, with an annual average of 10,5 million *reales* for the period under study. We can also see the tendency for a regular increase in value over the period.

Table 1. Expenditure in W&A, 1727-1800 (reales de vellón)



Source: Jurado Sánchez (2006: 171) for the period 1727-1739 y AGS, DGT, Invº 16-24, b. 1-3.

2 The figures for 1727-38 period are taken them from Jurado Sanchez (2006: 171) so we have not detailed about the contracts of this period. We do have the data from 1739 included in our documentary series (AGS, DGT, Invº 16-24, b. 1-3). However, the accounts are

Beginning our series in 1727 is interesting because that is the date in which Great Britain and Spain started a series of military confrontations, mainly related with the control of the American trade which continued until 1748. There was a trivial war between the two nations from 1727 to 1729 which ended with the Treaty of Seville but the situation could only be defined as a "cold war" until 1739 when the conflict broke out again (González Enciso, 2011: 40-45). As we can see in the table, the evolution of the expenses in W&A since 1727 to 1738 was very stable, averaging about 6.8 million per year (below the average of the whole series).

It is also opportune that the detailed documentation begins in 1739, just in the beginning of a decade which saw the renewed Anglo-Spanish conflict, popularly called the War of Jenkins' Ear, which overlapped in 1742 with the War of Austrian Succession. The money assigned to cover this section of expenses increased its absolute importance during 1739-48 period to an average of 8.6 million per year.

Both periods could be really be examined together as one, characterized by war or the threat of it, which led to regular increase of expenses from about 6 to 10 million *reales* per year. The Treaty of Aquisgran, signed in October 1748, ended the War of the Austrian Succession and eventually also ended the conflict with Great Britain. King Felipe V had died in 1746, which brought to an end the vexed Italian question, which had been an obsession for him, but was of much less concern to his successor Fernando VI (see Gonzalez Enciso, 2003).

Although everything remained unchanged in Americas and the Italian solution did not live up to Spanish expectations, the new king Fernando VI, with the support of his government, concentrated in the Marquis de la Ensenada hands as a Secretary of Exchequer, War, Navy and Indias, considered it was the time end the era of conflict. A policy of peace and neutrality was imposed, which allowed the beginning an important programme of domestic reforms.

Table 1 shows that the equipment of the army was not one of the new monarch's priorities. The Horcasitas account (general treasurer in 1749-50, still biennial) shows signs of the new political circumstances, but the radical transformation came with Nicolas de Francia's account (general treasurer in 1751-52). It shows a huge contraction of expenditure in W&A continuing after the fall of Ensenada in 1754, the beginning

not yearly until 1753, so we apportion the monthly amounts for 1739-1752 period. After issuing the *Real Decreto 08/05/1753* to order the GT, the amounts are yearly, compact and homogeneous offering detailed and systematized information.

of the *Seven Years' War* in 1756 (in which Spain is not involved until 1762) and the death of the king Fernando VI. All the budgets from 1749 to 1761 kept under 5 million per year and, in fact, averaged 3 million for the period as a whole. The period of peace and armed neutrality in Spain had an obvious effect on our series.

Only after Carlos III became king in 1759, did the numbers slightly increase and only reached the pre-1748 level when the peaceful period abruptly ended. In August 1761, Carlos III signed the Third Family Compact with France and in January 1762, Great Britain and Spain declared the war each other. Expenditure increased quickly, reaching 10-15 million per year, a level that remained until 1785 as the Spanish Monarchy became involved in the Seven Years' War (1762-1763), the African wars in 1774-75 and the American War of Independence (1779-83). The average expenditure between 1762 and 1785 was 12.5 million; a noteworthy different from the two previous periods.

From 1786 the effects of an economic crisis and continuing warfare, with the Spanish involvement in the War of the Roussillon or War of the French Convention (1793-95) and later against Great Britain (1796-1802), began to be felt. Our series shows irregularity, but peaking at the highest figure for the series at 16 million per year. The financing of army equipment was sometimes under 10 million and, on other occasions, over 15 million, reaching 30 million at critical moments. These fluctuations probably represent a clash between a political will to reduce the expenses and the persistent reality of an intermittent war which forced essential and improvised financial decisions.

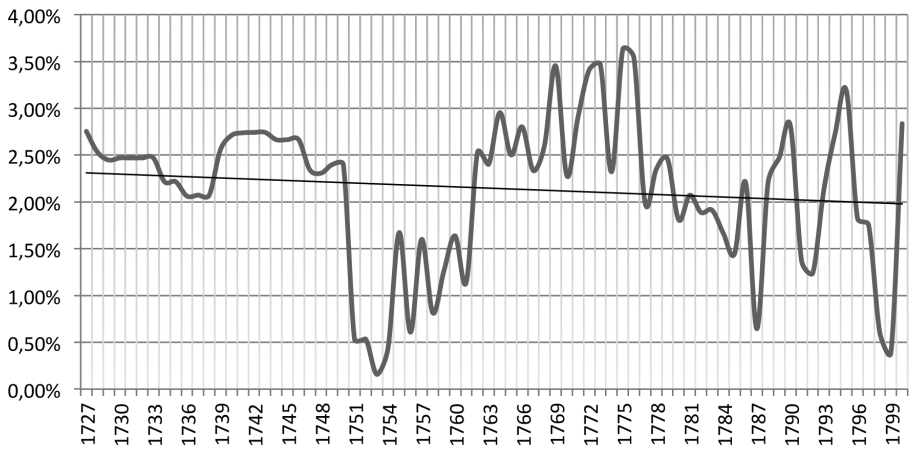
In conclusion, we are able to differentiate four periods in our table. A first one from 1727-48 was a time of war, with expenses ranging between 5-10 million reales per year. A second period, the peaceful one from 1749-61, with amounts under 5 million. A third period, from 1762-86, in which expenses are very regular, but with an evident rising trend of consignments up to 10-15 million per annum. Finally, the last period from 1787 to 1800, in which the series shows a clear irregular tendency, but going over 15 million.

From this we may conclude that there were quite different choices in the distribution of expenses in the reigns of Felipe V, Fernando VI, Carlos III and Carlos IV. However, the figures discussed above are absolute values at current prices. We have not considered the inflation in Spain during the century, which was quite low between 1748 and 1786, but particularly intense thereafter. Nor have we considered the tax burden nor the tax receipts and, consequently, the wealth availability of the Royal Finances. This is what we must now turn towards.

1.2. Analysis and periodization (relative terms)

We will now try to establish the relative importance of the funds given in W&A compared to the rest of expenses approved by the GT. Of course, it is not possible to talk about a "National Budget" until nineteenth century, but the information from the GT is quite close to the total expenditure of the Royal Finances during the eighteenth century (see Dubet, 2010a: 95-132 and Dubet, 2012). We obtained the total figures from the report of Jurado Sanchez (2006: 155-156) to calculate the percentage representing the data in the previous table.[3] The result is shown in *Table 2*.

Table 2. Expenditure in W&A based on the GT data, 1727-1800 (percentages)



Source: Jurado Sánchez (2006: 155-6) and figures from Table 1.

The expenditure of W&A as a percentage of global GT expenditure averages at 2.2 per cent per year. Although it oscillates, there is also certain regularity in the numbers in that, except in very special occasions, they never go lower than 0.5 per cent nor go over 3.5 per cent. We can assume therefore that there were always, to a greater of lesser degree, contracts in force to supply the army, but also that none of the Spanish

3 Of course, it is not possible to talk about *'National Budget'* until nineteenth century, but the information from the GT is quite close to the total expenditure of the Royal Finances during the eighteenth century (see Dubet, 2010: 95-132 and Dubet, 2012).

Monarchy Governments made them a priority. We could talk about it being medium-high level concern under Felipe V, low level with Fernando VI, high level with Carlos III and irregular with Carlos IV. But the most important difference between *Table 1* and *Table 2* is that the tendency line is slightly decreasing in this second case. In fact, the wealth designed to clothing supplies tends to reduce during the course of the eighteenth century. If we put together the information in *Table 2* with the periods before mentioned in *Table 1* we can see similar characteristics in the first two periods. However, the third period shows now a progressive decrease and the fourth one lowers its relative importance substantially.

From 1727 to 1748, the percentage of the assigned expense to W&A remained between 2-3 per cent of the total: during the conflict years (1739-1748) it was closer to 3 per cent and during the "cold war" closer to 2 per cent, but the average of the period is clearly 2.5 per cent. However, during the 1730s and 1740s the funds managed by the GT increased progressively because of improvements in tax collection; this fact allowed increasing the expenditure from 260 to 360 million reales. Our *clase* of W&A was constantly adapting to availability of funds from the GT.

The second period, the peaceful one, is, similarly, not difficult to analyse. The funds assigned to the W&A were under 1 per cent of the total, well under the average for the complete period. The funds available to the Royal Finances during this period did not decrease, but actually increased. This was mainly because of the recovery in commercial activity with Indies, so the revenues rose to 400 million reales per year. However, clothing and arming the army were not on the Crown's list of priorities.

The percentages allocated under this heading rose to over 2 per cent again from 1762 and, during the early 1770s, reached the maximum of our series, going over 3 per cent for the first time in a period without military conflicts. So, the period in which the most money was assigned to cloth and arm the Spanish army was one of international stability rather than warfare.

Also, the percentages no longer mirror the absolute figures. The average for the period 1762-78 is 2.8 per cent per year, but from 1779-85 it decreased to 1.9 per cent. The beginning of the American War of Independence increased the absolute figures, but decreased the relative proportion of the money assigned. The explanation is clear: the Crown asked its subjects for a new fiscal effort. There was a renewed collection effort, which affected all kind of income. There was a new negotiation of vouchers and bills, which increased the available income for the Monarchy. The budget of the Crown kept growing regularly to go over 400 million and, in the late 1780s, to over

500 million. So, the while the funds assigned to W&A remained fairly constant, its relative importance went down.

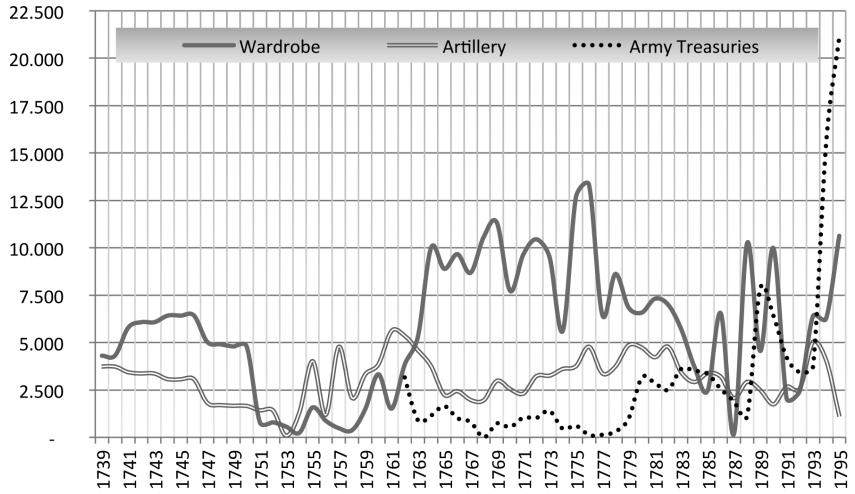
In the year 1786 an era begins in which the expenditure in absolute terms was at its highest level of our series, but not in relative terms. During the war years, the budget assigned to W&A was close to 3 per cent and in peaceful years that followed it went down to the 0.5 per cent, but these 16 million per year are only 1.8 per cent of the total expenditure and thus are under the period average.

In conclusion, the funds over the average from the first period 1727-48 gains relative importance, which is also the case in the period 1749-61. The third period 1762-85, must be divided in two parts, separated in the year 1779. The earlier period gaining relative significant, and falling in the second part. This continued into the last period (1786-1800). The difference between the relative and the absolute terms is a consequence of the progressive increase in the tax yield in the eighteenth century Spain, combined with the inflation suffered, especially from the 1780s. However, it is very interesting to emphasize that there was not always a direct relation between war and the importance of our expenses in the budget. The 40s and the 70s are in the top —a time of war and a time of peace—. There are moments of war with efficient financing in clothing and artillery and other moments, also in war and specially at the end of the century, in which this kind of expense was not the state's top priority. Our kind of expenditure is absolutely determined by the strategic options adopted by different governments and, ultimately, the decision of the monarch himself (Torres Sánchez, 2002a: 487-512).

1.3. A distinction between funds for wardrobe and funds for arms

Now we will proceed to analyse the basic characteristics of the contracts agreed with the merchants just for supplying clothing to the Spanish army. We need to separate the clothing from arms inside the *clase* of W&A. We do it in *Table 3*.

Table 3. Composition of expense in the W&A, 1739-1796 (reales de vellón)



Source: AGS, DGT, Invº 16-24, b.1-3.

The main conclusion from this table is that the amount for clothing is double of that for arms, albeit with temporary variations. We also can observe that the funds assigned to arms are more regular than the ones for clothing. The third line of the table that appears in 1762 refers to the payments made by the Army Treasuries following the orders and instructions of the general treasurer (Solbes Ferri, 2007a: 187-211 & 2007b: 357-84).

Below we have a brief comment relating to the contracts for arms. There was a third part of the funds which were assigned to a contract signed by the *Compañía Guipuzcoana de Caracas* to supply the army with the arms made in Plasencia; that contract was in force until 1786, when the Guipuzcoana was changed for the *Compañía de Filipinas*. Together with this contract are another two others related to ammunition from Santander (Liérganes and La Cavada factories) on behalf of the Marques de Villacastel, and ammunition from Navarre (Eugui factory) signed by Francisco de Mendinueta.[4] In 1768 a new contract for ammunition and transport was signed in favour of Juan de

4 We have checked this information with Merino Navarro (1987: 103-142) and Pieper (1992: 219-20). Anyway, we prefer the Jurado Sánchez's calculations because he marks the difference between the precedent and the successive treasurer.

Michelena (Villacastel and Mendinueta were then out of business) and, finally, Michelena was replaced in 1786 by his nephew Leguia in contract for the transport of ammunition. Budgets adjustments barely affect the arm expenditure during our time of study because at least two or these three settlements are in force.

Just in a paragraph we have analysed the different ways for contracting arms and ammunition. We wanted to include this information to point out the contrast with the wardrobe, completely different, may be because there were not enough blacksmiths and the ones are only working for the Crown. Next, we will try to concentrate on the contracts that the Spanish Crown had with the wardrobe supplies to the royal army.

2. Wardrobe supplies for the Royal Army

2.1. Contracting Models and Accounting Control

The contract auctions followed a very precise pattern under the Bourbons throughout the century.

Each contract started with the presentation of *Pliego de Condiciones* [Conditions Form] signed by the merchant or company applying for the contract. It included the number of years that they committed to supply the clothing with fixed prices. In each contract all the conditions were perfectly detailed, sometimes even to the level of the colours, quality of the fabrics, insignias and accessories. The documents included the guilds working for the supplier and also the conditions, deadlines and delivery places. Normally, the suppliers bore the charge of the delivery, which was usually between three and six months after the order was placed to places like Madrid, Barcelona, Valencia, Cartagena or Cádiz. From there the Royal Finances covered the additional transport to their final destinations. The exemptions and privileges of the suppliers during the settlement period were also detailed. The most important of these related to the exemption of customs rights for their raw materials in transit.

The *pliego* were finally approved by *Real Orden*. The Finances Council was informed by the Secretary of the Exchequer. The *contador de valores* signed a copy of the contract to keep in the *Contaduría General de Valores*. The contract came into force from that moment.

The production process really began with the *Real Orden de Formalización de Encargo* [Royal Order to Make the Settlement Official] communicated by the Secretary of the Exchequer himself or a Quartermaster (as his representative) to the supplier. That

order included all the details of the job, including delivery dates. Every year there were a large number of orders for the equipment for each troop and section. The Secretary of Exchequer designated a General Inspector of each section who sent an official to monitor the deliveries to royal warehouses. Meanwhile, the Quartermaster of each military department chose another official to check the quality of the product. Both had to sign and give the supplier the appropriate *Recibo de Entrega* [Delivery Receipt] and *Certificado de Aprobación del Género* [Approval Form] necessary before he could receive payment for the goods.

When the suppliers had enough receipts and approval forms, normally every three months, their representatives went before the main *contador* of the GT to present the formal *Ajustamiento* [Adjustment] of the delivered goods to the troops. They presented the receipts and certificates with very detailed accounts of clothing, contract prices, transport costs and so on until they reached a final sum for the account. The total amount was the one the suppliers received from the GT, which also gave them the *Recibo de Libramiento* [Order of Payment] to which was added the proper certificate from the GT notary. If the suppliers did not receive their money on time, they could stop further deliveries. However, this did not mean that the suppliers received all their money in that point. Among the entries in the adjustment, the supplier included the money received in advance, payments on account or sums received from other treasuries. So, the day of the adjustment was just the GT making officially noting the documentation in the process.

When the fiscal year ended all these official documents were sent to the *Tesorería de Cesación*. The GT is occupied by two treasures in alternative years (in fact since 1753) because the first obligation of the outgoing general treasurer is compiled all the information about payments in a report and present it to the Contaduría to get the appropriate *Decreto de Aprobación de Cuentas* [passing decree]; then, the treasurer is ready for recuperate his task in the follow year. In his account, he had to differentiate the types of expenditure and create separate accounts for every *clase*. Every document related to each kind of expense consisted of a number of items which recorded the money paid for the approved contracts, the royal orders and their receipts, including the originals. Every expense item was related to only one supplier or contract, but all of them included every adjustment of the year. The document finished with the amount of money paid during a year and the amount made accepted by the treasurer.

2.2. Evolution

a) Before 1739: The Habsburgs clearly left the production and distribution of the industrial goods for military use in private hands (see Sanz Ayanz, 1989). Consequently, the Bourbons inherited a very small military industry. They solved the army's problems and covered its necessities by using foreigner suppliers. Such situation, together with the reorganisation of the army introduced by Philip V, brought in an excess of French war materials during the Succession War as French ministers saw the business for suppliers and merchants exploited the opportunity (Kamen, 1974: 75-83). For example, in November 1713, a contract was signed with Pedro de Leleu, a merchant from Paris, to make and deliver in Madrid 2,015 sets of clothing before March 1714. In April 1714, the supplier delivered the consignment and he had received 3.6 million *reales*, meanwhile it was being managing the payment of the rest 1.4 million.[5]

During Alberoni's ministry the Crown turned to direct production. This was the beginning of government intervention in industrial matters and the establishment of the Royal factories. The strategic purpose was to assure quality and price and favoured Spanish rather than foreign merchants. A document lists all the clothing and arms bought between 1718-20 for forty-nine regiment troops of Infantry (with 650 men in each) in Catalonia, Mallorca, Valencia, Murcia, Aragón, Navarra and Guipúzcoa. This totalled about 31,850 complete uniforms all of which were manufactured in Zaragoza, Barcelona and Madrid.[6]

In 1730s the relationship between the Crown and the suppliers was reconsidered, because of growing concern about abuses from the rent lessors and the suppliers.[7] Patiño wanted to move to the direct management with control resting with the Quartemasters who would become the local supplies managers. They would pay with the funds managed by the army treasurers, always under the GT's control.[8] We do not know what happened with this project but it disappeared after Patiño died in 1736, the successive suspension of payments began in March 1739 (Fernández Albadalejo, 1977: 51-81) and a new war against England broke out that autumn. In

5 See González Enciso in the present book; references for Mendinueta in Torres Sánchez (2002b).

6 AGS, Guerra, Suplemento, leg. 543.

7 AGS, Guerra, leg. 5352.

8 See Pérez Fernández Turégano (2006). For the introduction of direct administration in the tobacco rent see Solbes Ferri (2008: 122-73).

this situation, the Crown had no option but to begin contracting again with private merchants to supply the army. In fact, until the end of June 1738, Matias de Valparda was the supplier in charge of the clothing for fifteen battalions and whatever else was needed by the different regiments.[9] This was the return to the solution of the first decades of the century; the Crown dealing with private intermediaries in order to coordinate production and distribution.

b) Times of war (1739-48): The suppliers' contracts are now the principal solution for clothing, as we explain, but we will study at least five alternative options in this matter.

– *General Suppliers Contracts*: This section is completely consistent with legal rules outlined in part 2.2. The general supplier in 1739-40 was Miguel de Arizcun, Marques de Iturbieta, whose heirs were not interested in this contract after his death in 1741. Iturbieta received almost half of the 8 million budget assigned to clothing. In 1741-43 there was a budget of 17 million for clothing and Matias de Valparda, from Barcelona was the supplier in charge. He received a third of the total amount. In 1744-46 the budget had risen to 20 million and Valparda was still the general supplier, but now only receiving a quarter of the total. A new supplier, Vicente Puyol, also from Barcelona, was in charge of the clothing supplies to the army in Italy, receiving 11.6 million. Finally, in 1747-48 Vicente Puyol was the only supplier receiving 7 million for the contract out of the 9.5 clothing budget. In conclusion, the Crown progressively strengthened a general supplier during this decade to make sure of its control over him. On this occasion the Catalan suppliers had control of the contracts because production was particularly concentrated in their Principado.
– *Other Suppliers Contracts*: Together with the general contracts we have to remember there were special contracts assigned to special troop equipment. All of had the same legal formalities as the general suppliers' contracts, no matter the amount (Torres Sánchez, 1996, 7). The elite troops, like the *guardias de corps* and Royal Halberdiers contracts were with Jose Cebrian, Jaume Planell or the Marques de la Bondad Real. Other examples are those related to courtisans of the *Reales Sitios*, bedding, contracts for mule transport, prisoners' clothing, gypsyes captured in Andalucia and Valencia or, the longest one, that assigned to clothing the African

9 Torres Sánchez asserts that the system is similar to the British *Victualling Board* (2002: 492).

garrison. The general suppliers do appear to have had some of these contracts, but they were always separate and signed individually. The amounts never represented more than a tenth from the total assigned to clothing.

– *Contracts with producers*: The Crown kept trying to deal directly with the producers, even when the control and supervision could be more difficult. In the 1741-43 accounts there is a reference to a *Real Decreto* of 25th September 1739 in which Felipe V ordered that the troops' clothing contracts had to revert to the earlier method.[10] The contract method is interesting but not economically significant as the costs of all these materials were less than 10 per cent of the total amount. The general treasurer had to adjust the contracts with different places and people depending on the *Cinco Gremios Mayores de Madrid* [Five Guilds of Madrid] for the fabric supply and other goods (Gómez Rojo, 2008, 187-214). These wares had to be put in a warehouse in the Cuartel de Guardias de Corps in Madrid, under the care of a lieutenant helped by a measurer assistant and someone in charge of the transports; all of them were paid by the Royal Finances. That was an alternative relationship with the suppliers, centralized in Madrid —against the preponderance of Catalonian general suppliers—, reinforcing the producers close to the Crown, setting the Guilds of Madrid as guarantors of constitutional control. The accounts of the period detailed the amount of cloth acquired in Navas del Marques, Villoslada, Lumbreras, Anguiano, Pedroso, Cabeza del Rey, Olmeda, Nuevo Bazán and Teruel (González Enciso, 1975 and 1984). We can also see the amount paid to several dyers and tailors, the contracts with the chair makers guild, leather craftsmen, esparto workers, shoe makers, and all the other artisans related to the army necessaries.
– *"De su cuenta"*: The principal exception from the previous methods was the payments to any company or battalion to acquire its clothing. Whether because of tradition or because of a a missed deadline, the Royal Finances could provide cash directly to the troops to supply their own uniforms (Torres Sánchez, 2002: 507). One of the more frequent complaints of the suppliers was that some regiments and military units were allowed to choose between taking their supplies or the money to buy them wherever they chose. This was bad for the suppliers, who lost on the contract when the market prices were low, and they could only recover when the prices

10 AGS, Guerra, leg. 5353.

were high, which was less beneficial to them. The GT paid the money to the authorised person in the troop and obtained a receipt that included that it included in its general report. We do not know how the regiments acquired the equipment but we suspect that they bought the materials directly from producers. Some companies or battalions retained this privilege throughout the century, in some cases dealing with considerable sums of money. For example, in the accounts for 1739-41 almost 1.4 million was assigned to Navy and Infantry battalions, and a similar amount was paid to the Guilds of Madrid.

– *Payments in Catalonia*: The last type of contract related to clothing made in Catalonia, for Catalonia. The supply assigned to this territory was quite important for most of the century, particularly during the campaigns in Italy. The contract was made with private suppliers (Jose de Florenza y Pons in this case) who delivered the goods directly to the regiments or military warehouses in Barcelona, where the he received the proper documents to enclose in his own adjustment. In this it was just like other contracts, but it differed in the method of payment because the suppliers need to go, in the first instance to the Tesoreria del Ejército de Cataluña, where the Quartermaster signed a *Recibo de Buenas Cuentas* [receipt of good accounts], which was then sent to the GT to confirm it and to include it in its general data. During this period, this applied only payments made in Catalonia. However, after 1762, any Army Treasury was allowed by the GT to execute payments in this way and all their Quartermasters were given the authority to manage the contracts in an important decentralize option.

c) Peaceful Time (1749-61): In 1749-50, when the conflict was over, we find Vicente Puyol was still receiving 8.8 million out of 9.5 million assigned to clothing on his account as the general supplier. The concentration of contracting with only one supplier remained. However, in the 1751-52 accounts the general supplier had disappeared and not because someone else had taken his place but because of the reduction in demand. It seems that the clothing purchases simply stopped.

All the other ways of contracting mentioned on the previous paragraphs remained but with much less significance. There was direct purchasing from the royal factories. A few payments were made to regiments and to the contracts managed by the Treasury of Catalonia. On the other hand, in 1752 a new and large contract was signed with Felix Basiana (soon with his widow Manuela Sapena) to cloth the soldiers in Africa garrisons. The 1753 account was finally only half million *reales* for clothing: the Africa

garrison got half and the other half was manufactured in Catalonia by Benito Gusta. During the following years only the African contract continued, renewed in 1758 with Leopoldo Pons. In 1759 there was a new contract to make uniforms for the *guardias de corps*, the Halberdiers and the royal stables staff, with Manuel de Iruegas. The clothing expenditure didn't exceed 2.5 million reales this year.

What happened to the general suppliers who worked for the Crown during the war? Simply, they just disappear for us. It's clear that the king can create or modify the rulers for the military expenses. It all depends on the royal wishes. The tendency for concentrating the public demand in one monopolistic method, presided by the general supplier, is broken again. The new king Carlos III will need to begin again.

d) Sierra, Bacardi & Mestres Co. (1762-85): With the Spanish intervention in the Seven Years' War, Benito Gusta from Catalonia became the paper of general supplier. The budget for clothing changed abruptly from 1-2 to 9 million and Gusta's payments increased from under 1 million in 1762 to 3 million in 1763. But it seems that he could cover the complete demand from the army. The Monarchy's provisional solution is to make a number of small contracts with different producers and to create a new contract with the Five Guilds in Madrid.[11]

When the war finished, the minister Marquis de Esquilache completely reformed the supply system for the army. The new policy was clear: going back to a single general supplier and here we come across the most important contract in our series; that signed with the Company of Ramon Sierra's (citizen and attorney of Madrid), Baltasar Bacardi and Esteban Mestres, both from Barcelona. Such merchants assumed the supplying of the contract for the infantry, artillery, navy, invalids, cavalry, dragoons and the troops in Catalonia and Aragon wardrobes. The contract was initially for ten years (1764-74) but successive contracts renewed the terms and enabled them to keep control until 1785. The concentration of power in this contract is obvious. Production was organised in Barcelona and the clothing distributed all over Spain, with another contract of transporting it signed with the same company. The payments of these adjustments are the highest of this period, with 7 or 8 million per year, being 80 per cent of the clothing budget. This monopoly was only shared with Iruegas for the elite troops and with Pons for the African prisons; the other, alternative, ways of contracting were reduced to just some regiments providing the goods themselves.

11 AGS, DGT, Invº 16-24, leg. 1.

The Crown needed strong suppliers, able to assume big contracts and the suppliers needed the guaranty of a contract and prompt payment. The Royal Finances were now in a few suppliers' hands for clothing and the same was true for the supply of arms. This was not a solution to the supply problem that was chosen by other European nations in our period of study, but, for Spain, the savings and the security of supply were more important than the advantages of dealing directly with the producers.

Looking to the accounting question, there was an administrative innovation in these years related to the appearance in the GT data of the payments by the Army Treasuries. In essence, it is just a way to make easier the accounting and the financing by the Crown, in relation with the phenomenon called by Torres Sanchez *'expenditure militarisation in the Carlos III's Spain'* (Torres Sánchez, 2009). As we know, the Army Quartermasters were authorised to order the supplies and the Army Treasuries allowed to make the payments with their available funds; the accountant of the same treasury taking note of all the process. Even though the payments from those local treasuries were of little importance until 1775, it could possibly become very significant the moment that the troops moved to Andalucía in relation to military needs. Meanwhile, it will appear the Army Treasury of Castilla la Vieja and even, the Treasury of Orán, in the African campaigns context. In 1779, when Spain started entered the American Independence War, the Army Treasury of Andalucía appeared very strongly as the main originator of the contracts to supply the troops destined for America. The payments from that moment and until 1785 amounted to 20 per cent of the total budget —Catalonian Treasury had never worked with so much money— and the expenditure decentralization was further enhanced during the following war.

e) Last period (1786-96): It remains only one decade of analyse but changes are still waiting for us. The most important event was the end of the general suppliers because the Sierra, Bacardi & Mestres contract finished in 1786 and also the Pons one ended in 1788. The rules of the game have changed again and the alternative were diverse once more. These are the new solutions.

– *Direct Administration:* A new alternative was the National Bank of San Carlos, created in 1782, as clothing supplier for the regiments of local militias all over Spain (Tedde de Lorca, 1988: 154-8). This contract included important innovations. The first was the way they chose to supply these troops, with the resolution of the *Real Decreto* 20/04/1784 by which the Royal Finances took direct administration

of the Spanish Army organization.[12] The second was that such contract payments were charged directly to a tax of two *reales* per salt bushel and not simply charged to the funds managed by the GT. The accounting process was a payment letter from the treasurer of salt rent based on an order made by the *Inspector General de Milicias*, Juan Jose de Vertiz, in favour of the directors of the Bank. Such a letter was then communicated to the general treasurer to be included in his general data who, in turn, sent a payment letter to the salt taxes collection. The third innovation was that the Bank itself had a credit of 45.5 million for the supplies. These innovations explain the movement to direct administration. According to the legal form of settlement, the general suppliers could stop delivery if they did not receive payments punctually. At this time, the first economic difficulties were appearing for the Royal Finances and recourse to a finance institution with its own credit was an attractive solution, easing the pressure on royal credit. The contract with this institution was a temporal solution just for 1785-90 and finished in the latter year. From then on, the clothing for the regiments of local militias was managed directly by the Inspector General Vertiz, using the money collected from the salt taxes. There was no private contract for clothing.

– *Five Guild of Madrid*: According to the *Real Orden* 11/09/1788, this company got the contract for the *guardias de corps* and all servants of the Royal Household for the next ten years (1789-99). It was the traditional way, but using a semi-official organization in the place of the suppliers. We do not know if it was an action against the private suppliers or the way of getting more control over the production. The first seems more probable, given the financial situation of the moment, but it is not a definitive answer.
– *Improve the role of Army Treasuries:* Since 1789 there was a major quantitative change related to the Army Treasuries. In this year the Andalusia treasurer managed 4.3 million; more than the 3.5 of the National Bank. This was because following an order from the Quartermaster of the Andalusia Army, the provincial treasurer contracted with Marcos de Andueza for the supply of clothing of the American troops. Such supplier has a similar duty as the general suppliers but, in this case,

12 The period accounts detailed the amount of fabrics acquired in Navas del Marques, Villoslada, Lumbreras, Anguiano, Pedroso, Cabeza del Rey, Olmeda, Nuevo Bazán and Teruel. We can also see the amount paid to several dyers and tailors, the contracted by the chair makers guild, leather craftsmen, esparto workers, shoe makers, and all the artisans related to the army goods making.

he received the payments directly from the Andalusia Treasury —Bacardi and Mestres never had had that possibility—.

In a similar way, the payments made by the rest of the army treasuries were also increasing, especially on the head of giving companies funds to supply their own clothing. With the beginning of the War of Roussillon, the general budget assigned to clothing rose to 25 million in 1794 and 30 million in 1795. The charges on the Catalonian Treasury rose from 10 and 15 million respectively as a consequence of the *Real Orden* 31/07/1794. According to this, the king Carlos IV assigned that the army clothing contracts to be made either by the current Quartermasters or their commissioners. Therefore, the Catalonia Treasury made payments of the clothing contracts managed by the troops themselves. There was no longer any recourse to private contractors.

In conclusion, at this time the militias made their own contracts. The traditional contract was signed by the Five Guilds of Madrid, the only supplier (Andueza) was working with the Andalusia Treasury and the Army Treasury of Catalonia used the largest part of the clothing budget. During this decade the Crown tried to dress the troops without recourse to private contractors: why? Was it the royal wish or was it the impossibility of finding private contractors willing to cooperate with the Crown on clothing supplies?

In 1797, after the war with France had ended, the Royal Finances were exhausted, and in an attempt to resolve the supply problem in a time of terrible financial difficulties, it was suddenly decided to go back to a traditional contracting method —direct agreements with private producers if they could be found—. The GT accounts show once again show a large number of entries related to completely unknown merchants.

3. Conclusions

In the first part of our study we have observed that the funds assigned to our *clase* of spending increases in absolute terms but decreases in relative ones. Furthermore, we found a direct relation between the different reigns, and different government funding for clothing and arms. The second part confirmed that the politics of Felipe V, Fernando VI, Carlos III and Carlos IV in that matter are not the same. When the funds assigned for clothing increased relatively (Felipe V and Carlos III) the tendency was always to concentrate the demand in the hands of a monopolistic private supplier, such as the company of Vicente Puyol or Sierra, Bacardi & Mestres. But this solution

could be changed at any moment by the king, as happened with policies of Fernando VI and the financial difficulties of Carlos IV.

These financial difficulties of the Bourbon Monarchy in mobilizing the means to supply the Spanish army were obvious throughout the eighteenth century. This was the necessary consequence of absolute military priorities within the current administrative system. It kept private groups specialized in collecting rents and managing of the king's needs, giving them large amounts of power and influence (Torres Sánchez, 1999: 289). This solution appeared very clearly during the Habsburgs Dynasty but it was the same during the Bourbons period. The contracts signed with private merchants continued throughout century, but in several different forms, which are reflected in this study. Whether it was impossible to replace them or because the business was good for both parties, the Spanish army's supply of clothing kept to these traditional methods.

Accepting the situation, the Crown tried to increase the accounting control of the General Treasury over these contracts. Our study has shown the complexity of this system. Their evolution and changes tends probably to concentrate the control in Madrid but at the same time encourage the decentralisation of the executive system in favour of the Army Treasuries across Spain. At least this circumstance may be considerate a clear sign of accounting modernization and financial efficiency.

Bibliography

DUBET, A. (2010). "¿Tesorería Mayor o Tesorería General?: El control contable en los años 1720: una historia conflictiva" en *De Computis: Revista Española de Historia de la Contabilidad*, nº 13, pp. 95-132

DUBET, A. (2012). "Entre dos modelos de gobierno de la hacienda militar. Las reformas de la Tesorería Mayor en España en 1721-1727", en GONZÁLEZ ENCISO A. y TORRES SÁNCHEZ R. (eds.), *La construcción de un Estado Militar: la monarquía española (1648-1814)*, Sesión particular del congreso de la FEHM, Granada, 10-12 de junio de 2010.

FERNÁNDEZ ALBADALEJO, P. (1977). "El decreto de suspensión de pagos de 1739: análisis e implicaciones" en *Moneda y Crédito* nº 142, pp. 57-77

GÓMEZ ROJO, Mª E. (2008). "Las implicaciones jurídicas, sociales y económicas de los cinco gremios mayores de Madrid como institución mercantil y financiera en la España del siglo XVIII", en *Revista de estudios histórico-jurídicos* nº 30, pp. 187-214.

GONZÁLEZ ENCISO, A. (2003). *Felipe V. La renovación de España. Sociedad y economía en el reinado del primer Borbón*, Pamplona: EUNSA.

GONZÁLEZ ENCISO, A. (2011). "La Guerra de la Oreja de Jenkins. Política y Economía", en DÍAZ BENÍTEZ, J.J.; GALVÁN RODRÍGUEZ, E. y LUXÁN MELÉNDEZ, S. (eds.), *Conflictos bélicos y relaciones internacionales (1739-1927). Canarias en la encrucijada de la Guerra de la Independencia*, Santa Cruz de Tenerife: Ediciones Idea, pp. 29-87.

JURADO SÁNCHEZ, J.J. (2006). *El gasto de la Hacienda española durante el siglo XVIII. Cuantía y estructura de los pagos del Estado (1703-1800),* Madrid: Instituto de Estudios Fiscales.

KAMEN, H. (1974). *La Guerra de Sucesión en España, 1700-1715,* Barcelona: Crítica.

MERINO NAVARRO, J.P. (1987). *Las cuentas de la administración central española, 1750-1820,* IEF, Madrid.

PÉREZ FERNÁNDEZ-TURÉGANO, C. (2006). *Patiño y las reformas de la administración en el reinado de Felipe V*, Madrid: Instituto de Historia y Cultura Naval.

PIEPER, R. (1992). *La Hacienda Real bajo Fernando VI y Carlos III (1753-1788): repercusiones económicas y sociales,* IEF, Madrid.

SANZ AYANZ, C. (1989). *Los Banqueros de Carlos II*, Valladolid: Universidad, Secretariado de Publicaciones.

SOLBES FERRI, S. (2007a). "Tesorerías de ejército: estructuras administrativo-contables para la gestión de los recursos fiscales en la España borbónica: Galicia, 1755-1780", en *Obradoiro de historia moderna*, nº 16, pp. 187-211.

SOLBES FERRI, S. (2007b). "Administrative and Accounting system of the Army Treasuries: the Treasuries of the Kingdoms of the Crown of Aragon from 1755 to 1765", in TORRES SÁNCHEZ, R. (ed.), *War, State and Development. Fiscal-Military States in the Eighteenth Century,* Pamplona: EUNSA, pp. 357-384.

SOLBES FERRI, S. (2008). "Estrategias de gestión de la renta del tabaco, 1726-1736: el gobierno de Patiño y la introducción de la administración directa", en GONZÁLEZ ENCISO, Agustín (ed.), *Política económica y gestión de la renta del tabaco en el siglo XVIII* Madrid: Fundación Altadis, pp. 122-173.

TEDDE DE LORCA, P. (1988). *El Banco de San Carlos (1782-1829)*, Madrid: Alianza Editorial.

TORRES SÁNCHEZ, R. (1997). ""Servir al Rey", más una comisión: el fortalecimiento de los asentistas en la corona española durante la segunda mitad del siglo XVIII", en *Actas de la IV Reunión Científica de la AEHE*, Vol. 1, pp. 149-168.

TORRES SÁNCHEZ, R. (2000). "Producir o comprar, la demanda de la Corona española de productos industriales en el siglo XVIII", en Ribot García, L.A. y De Rosa, L. (coords.), *Industria y época moderna*, pp. 95-132

TORRES SÁNCHEZ, R. (2002). "Cuando las reglas del juego cambian: mercados y privilegio en el abastecimiento del ejército español en el siglo XVIII", en *Revista de historia moderna: Anales de la Universidad de Alicante*, nº 20, pp. 487-512.

TORRES SÁNCHEZ, R. (2008). "Las prioridades de un monarca ilustrado" o las limitaciones del Estado fiscal-militar de Carlos III" en *Hispania: Revista española de historia*, vol. 68, nº 229, pp. 407-436

TORRES SÁNCHEZ, R. (2009). "La militarización de la Real Hacienda española. Las Tesorerías del Ejército en el siglo XVIII", en *Les financiers et la construction de l'Etat en France et en Espagne du milieu du XVIIe siècle au milieu du XIXe siècle*", Clermont-Ferrand.

TORRES SÁNCHEZ, R. (2010). "Un solo cargo y una sola data. Reformas y funciones del Tesorero General de la Real Hacienda española en el siglo XVIII", *Actas de la IX Reunión científica de la FEHM*, Málaga.

TORRES SÁNCHEZ, R. (2012). "El control del gasto del Estado Militar de Carlos III", en A. GONZÁLEZ ENCISO (ed.), *La contrucción de un Estado Militar. La Monarquía española (1648-1814),* Pamplona: EUNSA.

The Transformation of Tokugawa Military Regime in the First Half of the Eighteenth Century in Japan: With Special Reference to Yoshimune's Reformation

15

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1

Both Europe and Japan experienced 'Military Revolution' in early modern period (Roberts, 1967; Parker, 1988), and they both expanded their territories overseas. As Europe had colonies in North America, South America, and Africa, so too did Japan have *Nihonjin-machi* (Japanese towns) in Southeast Asia (Iwao, 1966; 1974). Their paths diverged, however, when the Tokugawa Bakufu ceased its expansionist policy and closed Japanese homeland for more than two centuries.

Without a doubt, Tokugawa was a military regime even though Japan throughout most of this period was a peaceful country; in essence, the country was a military state without wars (Tamaki, 2011). The Japanese constitution itself was paradoxical. The regime could not stand without wars, but there were no wars in Japan for many years, which nobody could have predicted at the beginning of the Tokugawa period. Indeed, the regime had to face many difficulties in maintaining itself. During the long Edo period, three *Kaikaku,* Reformations of the Japanese economic, social and constitutional systems were instituted: *Kyouho no Kaikaku* (1716-45), *Kansei no Kaikaku* (1787-93), and *Tenpou no Kaikaku* (1841-43). The most important and only successful *Kaikaku* of the Edo period was *Kyouho no Kaikaku* (Tsuji, 1963; Ohishi,1963). This Reformation is the main topic that I will deal with in this paper.

The Tokugawa constitution was completely a military one. To survive, the Bakufu (central government) needed wars, because it had to give new territories to their *Daimyo* (clan). By doing so, *Daimyo* could maintain their vassals. This was a logical way to maintain a warfare state. However, Japan could not maintain the Tokugawa

system without difficulty, because it did not conquer overseas lands. By the beginning of the eighteenth century, in fact, the Tokugawa government faced a serious financial situation. Though the Japanese economy grew, the *Bushi* could not benefit very much from it. What was worse, they became poorer relative to other classes.

In 1716, Tokugawa Yoshimune became the eighth Shogun of the Tokugawa Bakufu. The Tokugawa Bakufu would have collapsed without his *Kaikaku*, or Reformation. It has been studied from the domestic point of view, but this paper will take more global perspective.

The most important export from Japan in the early-modern age was silver, as without it, Japan could not import many goods from China (Kobata, 1968). Therefore, if we study Japanese economic and commercial relations with foreign countries, we should study the circulation of silver. In this regard, the paper written by Dennis Flynn and Arturo Giráldez in 1995 is my starting point.

2

Silver is one of the most important commodities for the study of global history. It has circulated ubiquitously. Indeed, especially before the invention of paper money, silver was the metal most often used as a medium of exchange. Its significance is emphasised in the above-noted seminal article by Flynn and Giráldez. They write:

> *global trade emerged when all important populated continents began to exchange products continuously —both with each other directly and indirectly via other continents— and in values sufficient to generate crucial impacts on all the trading partners. It is true that there was an important intercontinental trade before 1571, but there was no direct trade link between America and Asia, so the world market was not yet fully coherent or complete. To understand the global significance of the direct Pacific trade between America and Asia —international trade history's "missing link"— it is useful first to discuss the underlying economic forces that motivated profitable world trade in the early modern period. The singular product most responsible for the birth of world trade was silver* (Flynn and Giráldez, 1995: 201).

Flynn and Giráldez implicitly criticise the Eurocentric viewpoint. They contend that Europeans served only as middlemen in what was a vast silver trade, or more specifically, as intermediaries in the trade between the New World and China. Furthermore, the

phenomenon of the 'price revolution' occurred in Europe as well as in Asia (Flynn and Giráldez, 1995: 203).

China certainly was the dominant importer of silver and thus it was extremely important area for silver circulation. Flynn and Giráldez emphasise that *'it is crucial to focus on silver to understand the underlying motivation of world trade: it was the elevated value of silver inside'* (Flynn and Giráldez, 1995: 205). Insisting on the importance of silver (not gold), they write:

> *We have already established that gold and silver did not travel jointly into the Asian marketplace as a balancing item called 'money'. New World silver did indeed travel from Europe to Asia, but it crossed paths with gold coming in the opposite direction —out of Asia and into the West—. Abstract 'money' did not balance a trade deficit in the passive way commonly portrayed in the literature; rather, it was a specific commodity —silver— that travelled to Asia, not gold. Gold was one of the products for which silver was exchanged* (Flynn and Giráldez, 1995: 207).

It is a fact that European wares did not find markets in Asia, least of all in China. It was around 1750 that Asia began to export silver to Europe, owing to its balance-of-trade deficit with that continent (Steensgaard, 1990). Moreover, China was arguably the most affluent country from around seventeenth to the first half of the eighteenth century.

Both Europe and Japan had to export silver to compensate for their trade deficits with China. Essentially, they had to invent a system by which they could compete with China. On the one hand, Europe expanded trade with the New World, and they imported silver from there. Without those imports, Europe could not have traded with China. Japan, however, had sufficient silver mines to supply their own trade needs.

Flynn and Giráldez write,

> *the amount of Japanese silver poured into foreign trade in the heyday of Japan's overseas trade, 1615 to 1625, through Japanese, Chinese, Dutch, Portuguese and other ships, reached tremendous value, roughly estimated at 130,000-160,000 kilograms —equal to 30 or 40 per cent of the total world silver production outside Japan—. This explains why European and Asian merchants were so enthusiastic about developing trade with Japan*' (Flynn and Giráldez, 1995: 202).[1]

1 This is a citation from Iwao Seiichi (1959: 10).

Japanese silver coins were considered the most reliable in South-East Asia in the seventeenth century.

Although Flynn and Giráldez repeatedly emphasise the significance of Manila's establishment and Europe's status as a mere middleman between America and Russia, seemingly to avoid the charge of Eurocentrism, they still seem Eurocentric, in my view. Japan could export silver to China without Europe's intermediation. And while it is true that Manila was important as a link between America and Europe, it was only so for the Europeans and not for the Japanese.

Silver is a most important commodity for research of commercial networks in early modern global history; the flows of many commodities were connected very closely with it. Europe and Japan had trade deficits with China, and they had to export silver to that country to right the imbalance. On the one hand, Europe imported silver from Latin America —of course, we should not underestimate the volume of silver production in Central Europe—, but without doubt the volume in Latin America was much larger than in Europe. On the other hand, Japan had many silver mines, enough to compensate their trade deficit. How did these contrasting situations lead to the economic interdependence of those two areas?

3

Many historians currently know and use the term 'fiscal-military state' to describe early modern states in Europe. John Brewer used the term first to refer to eighteenth-century England, which incurred a huge deficit to wage wars, especially against France (Brewer, 1989). The concept has been applied variously by historians to many countries in early-modern Europe and outside Europe, for example the Ottoman Empire (Fritschy, 2009), the Mughal Empire, and Japan (Tamaki, 2007; 2011).

We should not forget that despite Europe's many wars in the early modern period, it was able to experience economic growth. Patrick O'Brien, for example, asked how England or Britain was able to continue waging wars against France while yet accomplishing economic growth. This is a theme he has studied for over thirty years. According to O'Brien, England had expanded its tax base, but the taxation was imposed mainly on goods that had high income elasticity; England thus was able to increase tax receipts without stifling economic growth (Mathias and O'Brien, 1976; O'Brien, 1988). O'Brien's thesis has influenced many historians in many countries. However, owing to the lack of pertinent historical sources, many historians find it

difficult to apply his method to other countries. In the case of Japan, we lack central and local governmental records of tax receipts. It is indeed extremely difficult to study the relations between war and economic growth by the econometric method. But we may nonetheless speculate about the connections between taxation and economic growth in early modern Japan. I should now clarify the Japanese tax system, as many readers will not have an in-depth knowledge of this subject.

From around the 1560s, Japan adopted the *Kokudaka-System* (rice-standard) as its tax system (Wakita, 1977: 17-18). The situation remained unchanged through the seventeenth century. The Japanese economy in the Edo period, accordingly, was based on the price of rice. The productivity of lands, for example, was expressed in terms of rice production. One *Koku* was equal to the amount that an adult man ate per year. The more *Koku* a *Daimyo* had, the more economic power he had. The centre of the rice market was Osaka (Miyamoto, 1988). Osaka was called *'the kitchen of Japan'*, or in other words, the hub of the Japanese economy. Saito and Settsu wrote, *'Thus the city of Osaka came to dominate the country's commerce in the latter half of the seventeenth century as the market for tax rice grew'* (Saito and Settsu, 2006: 3). It functioned on the basis of rice. If the price movement of other goods differed from that of rice, the Japanese economy would face a critical situation. In the course of the Edo period, such a situation did in fact occur, from about the 1690s: Farmers and peasants began to cultivate more vegetables and other foodstuffs for markets or fairs, and the importance of rice in the commodity market, correspondingly, declined.

The productivity of a *Daimyo*'s territory was indicated by use of the term *Koku*. All taxes were based on these rice yields. The largest *Daimyo* no doubt was a Shogun. He had four million *Koku*, and his direct vassals received three million *Koku*. The Edo Bakufu had a total of seven million *Koku*, or about one-fourth of the entirety of Japan. *Koku* had been fixed during the Edo period. However, the real output of rice had been increased in that same time frame, for example by the exploitation of new rice fields. In addition, we should note that Japan, by contrast with Europe, lacked excise tax. In the course of the Tokugawa period, the standard of living among farmers, peasants, craftsmen, merchants, and traders increased, but the Samurai's disposable income did not so much, because their income was fixed (Ohishi, 1977; Sato and Ohishi, 1995).

4

Four-fifths of the Japanese landmass comprises hills or mountains. Such areas are not suitable for cultivation. Farmers and peasants cultivated these lands even so, which caused much flooding. For example, Bizen in Okayama suffered a very large flood in July 1654; the water level of the Asahi River rose by over six meters, and the main part of Okayama Castle was submerged. There were 156 deaths due to this flood, and the accompanying hunger is estimated to affected around 3,600. This might not have been the most serious disaster, but its type was common in many places (Ohishi, 1989: 74). In short, it became very difficult to cultivate more land for agriculture. Farmers and peasants therefore had to increase the productivity of the (rice) fields they had or cultivated. This was the time for the transformation of the Japanese domestic economy.

When the Edo Bakufu was established, peasants lived at the subsistence level. At the beginning of the fifth Shogun Ietsuna's reign (1651-80), the surplus of rice in the form of *nengu* (a kind of taxation), which the peasants received, began to increase. The effect can be seen especially in the transformation of peasant lives. Originally they contributed a high proportion of their income to their *Ryoshu* (landlord). This system continued for about one hundred years, from the 1560s to the 1660s. Except for spades and sickles, the peasants in this period were obliged to provide for themselves.

Given that peasants retained their surpluses in their hands, the situation changed dramatically. That is, once their surplus was in their hands, it was exchanged through the markets. They thus came to demand more and more commodities that they did not produce. Whereas agriculture at the beginning of the Edo period was centred on rice production, and the Edo Bakufu system was based on the rice-standard, by the Age of Genroku (1688-1707), agriculture had been transformed, and peasants were cultivating special produce suitable to their particular area. We can in fact see the development of commercial agriculture in this Genroku period. There emerged additional varieties of rice: *Wase* (rice cultivated earlier), *Nakate* (rice cultivated in ordinary times) and *Okute* (rice cultivated later). The Japanese came to eat fresh rice as peasants began producing rice for markets to meet consumer demand (Ohishi, 1970: 43-48).

People's standard of living increased in this period as well. The tax burden, having been about 70 per cent at the beginning of the Edo Bakufu, declined to around 30 per cent by the beginning of the eighteenth century. The common people's disposable

income increased so much that their lifestyle changed. For example, their typical garb, which had been mainly hemp or linen, was now cotton, and even, for formal occasions, silk. The Japanese people ate usually twice a day before the Age of Genroku, but during it, they ate three times. They began to use fixed paper-enclosed lanterns, whereas before Genroku they had slept with the sunset and awoken with the sunlight.

On the foundation of this rising standard of living during the Genroku period, especially among the merchants and traders, Japanese popular culture, known as Genroku culture arose. However, as the income of the Samurai was fixed, the rise in their living standard was much smaller than that in the other classes.

5

With improvements to agricultural methods and tools, the standard of living among peasants increased, and they came to be able to produce and store surpluses. Commercial agriculture based on specialised agricultural products began to develop, especially from the 1680s to the 1710s. The Japanese started to cultivate new vegetables for markets. The standard of daily meals was thus improved. Life expectancy increased by fully five or six years in the course of the Edo period. Japanese governmental policy also contributed to this increasing standard of living.

A famous example of a textile merchant during the Genroku period, Mitsui Takatoshi (1622-94). He was born in Matsuzaka, in central Japan, and in middle age, in 1673, he moved to Edo (Nakada, 1988: 73). However, his commercial method was revolutionary.

He began a wholesale business, serving traders in many areas. Up to this time, it was usual for textile merchants to trade directly with customers. This business model was very profitable; though the margins were not much greater, it brought him about a higher income to him, as the volume of trade was much larger.

Before this, textile merchants had been engaged in *Misemonoshou*; that is, they received orders from customers, to whom they sold commodities. Customers paid after they had received their orders, and so merchants had to wait for several months before they received any money. This system had been put in place for the convenience of the main customers, who were *Daimyo*, or affluent merchants. If customers died or went bankrupt, or if a *Daimyo* was shut down, the price of textiles would be very high. Takatoshi, however, working against the grain of this custom, carried out retail and cash transactions directly with common people. He began to sell small pieces of textiles to

his customers. They were sold very easily (Nakada, 1988: 83-84). His success depended upon the rising standard of living among farmers, peasants, craftsmen, merchants and traders. The Bakufu's economic policy contributed to the prosperity not for *Bushi* but for the common people. Needless to say, this was not something that the Bakufu wanted to do.

Typically, largest merchants at this time were textile merchants. They traded with merchants and other traders in many areas. They stocked their commodities in Osaka, which was the centre of commerce for the Japanese economy. Their commodities were gathered in wholesale stores in Kyoto and then transported to Edo. During the Edo period, Japan used basically three metals for transactions: gold, silver and copper. Gold was mainly used in the East, and silver in the West. Gold and silver were used mainly for trade, and copper (*zeni*), for the ordinary transactions of the people. Gold, silver and copper were independent coins, and therefore, their rates of exchange varied daily (Sakudo, 1961: 310-31). Merchants needed to exchange gold with silver if they wanted to exchange goods between the eastern and western parts of Japan. It was very natural for large merchants to become moneychangers. Takatoshi himself became one. In 1786, as his business developed, he move his headquarters to Kyoto, where he bought his silk. There, he became a very successful textile merchant and moneychanger (Nakada, 1988: 152-158).

6

At the time of its birth, the Tokugawa Bakufu had plenty of gold and silver. Its wealth, at the beginning of the Edo period, had four sources: a) the legacy that had been in place since Ieyasu's reign; b) gold and silver from mines; c) *nengu* income from Tenryo (Tokugawa's territory); d) other, miscellaneous income.

Ieyasu's legacy, at the time of his death in 1616, was about 1,900,000 *ryo*. Some of this was inherited by *Gosanke*, who belonged to another branch of the Tokugawa family. Hidetada, who was the second Shogun and a son of Ieyasu, received 1,150,000 *ryo*. When Hidetada died in 1632, his legacy, as estimated, was much more than 2,500,000. The fourth Shogun Ietsuna is said to have inherited very large sums from his father, the third Shogun Iemitsu.

The Bakufu's most important stream of revenue was income from mines. Japan was one of the most affluent countries in gold and silver, and most of the gold and silver mines were owned by the Tokugawa Bakufu. Owing to this abundance, the Bakufu's

finances were very strong and stable. However, from the reign of the fourth Shogun Ietsuna (1651-80), they began gradually but steadily to decrease.

During the reign of the fifth Shogun Ietsuna, there occurred, in 1657, a famous large fire, *Meireki no Taika*. Almost all of Edo was completely destroyed by this fire. More than ten thousand people were killed. It caused the total loss of the Bakufu's assets in Edo Castle, melting the gold and silver. The Edo Bakufu incurred a huge expense in Edo's recovery, and lent money to *Daimyo* as well as *Hatamoto, Gokenin* (direct vassals of the Shogun) and *Chonin* (commoners in the cities), aiding them in their recovery of houses. Perhaps unsurprisingly, the Bakufu's finances deteriorated dramatically. What was worse, the production of gold and silver declined as well. The Bakufu was forced therefore to begin to use its own gold, silver and copper, which had been reserved for emergency use.

This was the situation of the Japanese domestic economy. It was of course closely connected with foreign trade. At the beginning of the Edo period, Japan exported a great deal of silver and gold, especially to China. However, exports of bullion declined in the seventeenth century, and by the middle of the eighteenth century, Japan was not exporting bullion at all; it had been transformed from a country blessed with resources to a resourceless one, at least in terms of precious metals. Japan in fact was not a very rich country from the sixteenth century to the beginning of the seventeenth. From the 1660s onwards, however, the Shogun prohibited exports of silver. Nevertheless, these exports did not wholly cease, and this was partly because of smuggling (however, it was 'smuggling' from only the central government's viewpoint).

The main silver exported to Asia was the *Keicho-gin* coin. Its silver ratio was 80 per cent. The peak in exports of this coin came in the 1660s. From the 1670s to the 1680s, Nagasaki adopted radical policies to suppress smuggling. For instance, in 1695, Ogiwara Shigehide (1658-1713) began to debase the quality of Japanese silver coinage. He produced the following silver coins: the *Genrokugin* coin (64 per cent silver, in 1695); the *Houei Futatsu hougin* coin (50 per cent, in 1706); the *Eijigin* coin (40 per cent, in 1710); the *Mittsu hougin* coin (32 per cent, in 1710), and the *Yottsu hougin* coin (40 per cent, in 1711). The quality of Japanese silver coins did indeed dramatically decline, leading to decreasing credit for Japanese coins in foreign countries. Chinese traders, for example, would not accept the *Eijigin* or the other debased coins (Tashiro, 2001: 132-135). To remedy this situation, Arai Hakuseki (1657-1725) enhanced the quality of his silver coins (*the Shotokugin*) back to 80 per cent in 1714. Before the next

debasement (*the Genbungin* coin: 46 per cent silver) was carried out, Japanese silver coins had become once again the most important to Asian trade.

Ogiwara Shigehide and Arai Hakuseki adopted opposite fiscal policies, the former focusing his attention on the domestic economy, the latter's preoccupation being foreign trade. The Japanese domestic economy, as I will discuss later, was developing, and Shigehide wanted to increase the money supply by devaluation. Such a policy, however, had an extremely negative impact on foreign trade. Hakuseki's policy, by contrast, brought about deflation but improved foreign trade which I will discuss this in more detail in the following section.

7

Although the Japanese economy grew, the production of gold and silver declined. It is very strange that the Bakufu did not issue paper money, but *Daimyo* did (*han-satsu*). To solve the money supply shortage, Ogiwara Shigeihide, in 1685, pursued a policy of debasement, shrinking the ratios of gold and silver in coins. The revenue the Bakufu received by this ploy is estimated to have been about five million *ryo*. Arai Hakuseki criticised this debasement very severely, as he believed that coins containing higher ratios of precious metal would be much better for Japanese economic stability.

Japanese coins, notably, were not cast by the governments themselves. The Edo Bakufu let out the coinage to special merchants. Gold was cast by Kinza (Gold place), silver by Ginza (Silver place; Taya, 1963), and copper by Zeniza (Copper place), in return for commissions (in the case of Ginza, merchants received 3 per cent). In the course of the seventeenth century, the quality of Japanese coins declined as the special merchants' commissions increased.

The commission rate increased from 3 (the initial rate) to 4 per cent in 1695, to 7 per cent in 1710, and to 13 per cent in 1711 (Taya, 1963: 269-296). These repeated debasements, in other words, contributed to the growth of the commissions the merchants of Kinza and Ginza received from the Tokugawa Bakufu. According to Arai Hakuseki, Ogirawa Shigehide received bribes from them, but there seem not to exist any sources corroborating this. This may have been the result of a dispute between the two individuals.

In current Japanese historical studies, Ogiwara Shigehide tends to be highly praised as the forerunner of capable fiscal bureaucrats. Probably he thought that if the Bakufu guaranteed the value of debased coins, they could be used as money.

The high-valued coins, for example *Keicho-kingin*, had been worn out, and they came to prevent commercial transactions. With the growth of the Japanese economy, the money supply should increase. The Bakufu had to provide sufficient money to meet the demands of commerce. But it was extremely difficult to make high-valued coins, as the gold and silver was almost depleted. In light of this situation, Shigehide's idea was a very natural one (Ohishi, 1970: 153-160).

For foreign relations, however, Shigehide's measure had deleterious effects. Japanese currencies had been broadly used, especially in South-East Asia, on account of their high proportions of gold and silver. But as the result of Shigehide's debasement, their use in that region began to be curtailed. Arai Hakuseki's high-proportion gold and silver were used in Asia, but his monetary policy resulted in depression for the Japanese economy.

In the end, Ohoka Tadasuke changed the policy direction. The Bakufu issued debased currencies. Japanese gold and silver mines had been almost completely depleted. The Bakufu could no longer produce high-proportion gold and silver coins. The Japanese therefore were forced to develop their country without reliance on gold or silver. They had to carry out import-substitution.

8

Yoshimune became the eighth Shogun in 1716. Around 1721 Japan suffered a bad harvest, and in the winter of that year, the Bakufu suffered a shortage of rice for *Hatamoto* and *Gokenin*. The Bakufu was able to supply the rice only in the spring of the following year, but the amount was only one-third of their vassals' income. The Bakufu's fiscal situation was worsening, and thus it was forced to fundamentally restructure its fiscal policy. By that time, Yoshimune was able to project his authority into the every part of the Bakufu.

In May 1722, Yoshimune appointed Mizuno Tadayuki as *Kattegakari-Roju*. Hence Yoshimune was able to concentrate on fiscal policy, and he showed a strong desire to reform the Bakufu's finances. The next year, the number of bureaucrats engaged in the accounting branch, the *Kanjogata*, was 130, which number was increased to 186 in 1733 (Tsuji, 1985: 73), reflecting Yoshimune's strong will to effect change.

In 1722, Bakufu adopted *Agemai rei*; the Bakufu ordered payment of 100 *Koku* per 10,000 *Koku* of *Daimyo*'s Kokudaka, but instead *Daimyo*'s term in Edo for Sankin Kotai was reduced to six months per year. The Bakufu's income, by this formula, was

187,000 *Koku*. The Bakufu planned to cultivate new (rice) fields, and expected that large merchants in Edo, Osaka and Kyoto would invest their money in this enterprise. In fact, merchants in Osaka had already invested in the cultivation of new rice fields. The Bakufu wanted to promote this tendency more and more, being very active in cultivation. In 1723, the plateau of Mitaka, Koganei and Kokubunji were cultivated; in 1727, Minuma in Saitama was reclaimed, yielding 8,000 *Koku* worth of new rice fields; around the same year, an irrigation channel uniting Tonegawa River and Arakawa River was excavated. Owing to the development of cities, markets for commercial crops had expanded, and so investments of huge amounts of money in cultivation were worthwhile (Tsuji, 1985: 74-78).

In 1722, Yoshimune introduced *Jomen-ho*, by which *nengu* was fixed to a certain amount. Before that, *nengu* was levied according to the amount of crops (*Kenmi-ho*). However, governmental officials had received bribes, and many times failed to report the exact amount. Yoshimune proposed *Jomen-ho* to reduce the risks inherent in *Kenmi-ho*. By adopting *Jomen-ho*, Yoshimune expected to increase the Bakufu's revenues at the cost of peasants' incomes (Ohishi, 1995: 75-76, 88).

Besides land reclamation and adaptation of *Jomen-ho*, Yoshimune promoted cultivation of crops other than rice and wheat. As an alternative to the export of gold and silver, Yoshimune attempted import-substitution of such crops as cotton, sugar, raw silk, tea, and ginseng. (Ohishi, 1995: 95). The Japanese eventually succeeded in import-substitution, but they needed much time to do so. The success, in any case, was owed much to Yoshimune's ambition. Yoshimune was called the 'rice-Shogun' for his efforts to increase rice production and control rice prices.

9

While Edo was the administrative capital of Japan, and its population was about one million, in economic terms, Osaka was Japan's centre. Osaka and Kyoto (Kamigata) were the most advanced areas in manufacturing and agricultural production. Even in about 1735, the Kanto area accounted for 16-20 per cent of total agricultural production. Unfortunately, Kanto's productivity was very low. Edo actually had to import many commodities from the Kansai area. In 1726 for example, Edo imported from Kamigata and the western part of Japan, via Osaka, necessities in the following ratios: sake, 28 per cent; soy sauce, 100 per cent; oil, 69 per cent; and cotton, 69 per cent. The price

problem in Edo was partly one of attracting goods from Kamigata and Shikoku as cheaply as possible (Ohishi, 1974: 96-97).

As noted above, Japan adopted the rice-standard. However, landlords converted the rice they received as income to currencies, and used those currencies for the purchase of goods. Whereas landlords received rice for their income, they did not need rice itself. Peasants and farmers likewise also needed to convert their rice or agricultural commodities to currencies, for the purchase of other necessities.

On the one hand, *Bushi*, peasants and farmers sold rice and bought necessities, but on the other hand, merchants and craftsmen sold various commodities and services, and bought rice. These two parties had different interests. As the precondition for the rice-standard, the price of rice was to correspond with those of other commodities. This system began to break down under the pressure of the development of the financial system.

Many of the *han* had rice warehouses (*Kurayashiki*) in Osaka, where they exchanged rice for money. Rice dealers purchased the rice, and, around the middle of the seventeenth century, began to carry out short selling. By 1706, although the price of tofu's raw material, soybeans, had decreased, tofu itself had grown more expensive, in Edo. *Edo-machibukgyo*, who were responsible for administration in Edo, summoned all wholesalers of tofu, and asked them why, despite the decline in the price of rice, other commodity prices, especially that of tofu, had increased, and this in the face even of a one-seventh drop in the price of soybeans. From this time, significantly, prices of rice began to diverge more and more from other commodity prices (Ohishi, 1974: 99-104). The Bakufu could no longer effectively control the price of rice.

10

As was pointed out earlier, the eastern part of Japan used gold as the main currency, and the western part, silver. Edo had to buy commodities from areas that used different metals for transactions. Thus, moneychangers could exert much power and influence on the Shogun. The above-noted financial policy of Ogiwara Shigehide depleted the value of silver, and so had a negative effect on the Kamigata merchants. But though he might have intended to diminish their power, these men proved to be shrewd negotiators.

Ohoka Tadasuke was born the fourth son of Ohoka Tadayo. In 1712, he became a *Yamada-Bug*yo (*Ise-Bugyo*), one of the *Ongoku-bugyo* (who administered the Bakufu's

important territories, excepting Edo). At that time, there had been years-long conflicts between Yamada and Kishu, which were basically advantageous to Yamada. The *Yamada-Bugyo* had not previously made any decision on this matter, as they were afraid of Kishu's response. Tadasuke nonetheless delivered a sentence that was disadvantageous to Kishu. Yoshimune, admiring Tadasuke's courage and fair attitude, appointed him *Edo-machibugyo* in 1717. He was one of the most eminent persons living during Yoshimune's reign.

One of Tadasuke's ambitions was to control the moneychangers. In 1718, he restricted their number to 600, and raised the inland exchange rates for gold and silver. He attempted also to reduce the value of silver, specifically by changing the exchange for one *ryo* of gold from 43-44 monme to 60 monme. In protest, the moneychangers closed their shops. Tadasuke, as a concession, made one *ryo* of gold equal to 54-55 monme, but ordered the moneychangers to maintain this rate. Still, however, the moneychangers refused to open their shops. Tadasuke, having failed to make his case, agreed to enter into a mutual agreement with the traders, whose power had proved to be much stronger even than that of *Edo-machibugyo* Ohoka Tadasuke.

As Japanese commerce developed and the scale of cities grew ever larger, so too did the role of wholesalers. In addition, the importance of moneychangers began to exceed that of wholesale storeowners. As already mentioned, the western part of Japan had greater economic power than the eastern part. The former had adopted the silver standard, and the latter, the gold standard. Essentially, commodities were transported from Western to Eastern Japan. Many were transported by land and by sea via Osaka. The moneychangers exchanged money from silver to gold and vice-versa. They had, undoubtedly, very extensive power in finance. The Bakufu sometimes found it difficult to overcome that power, even just to counter it. *Edo-machibugyo* Ohoka Tadasuke, for example, could not win the battle. Even so, the Bakufu had to control the moneychangers if it was to carry out *Kyoho no Kaikaku* (Ohishi, 1974: 137-145).

The exchange rate of gold to silver was 61.2-61.3 monme (approximately 3.75 grams) in June 1721, and 60.25-60.35 monme in August. But by December, it had dropped to 51.2-51.3 monme. In other words, prices, in terms of commission, had doubled in a very short time. Ohoka Tadasuke, responding, summoned the money-changers, and ordered them to decrease their rate. They replied, rather insouciantly, this was a natural, not artificial phenomenon, and hence it was impossible to manipulate the rate. Clearly, their power remained very strong.

In May 1735, Tadasuke carried out his money reforms. He debased the gold and silver coinage: if the quality of the Keicho gold and silver coins was equal to 100, the proportion of debased gold was 60 and that of debased silver, 58. Notably, the debasement rate of silver was higher than that of gold. And Tatasuke, in fact, aimed to reduce the value of silver compared with gold. Nevertheless, in June 1735, the rate declined to 49 monme. Tadasuke believed that this was caused by the moneychangers' speculation, and he summoned them to explain the high value of silver. They were, characteristically, difficult to deal with, sending only their subordinates. Tadasuke jailed them in response. They were released only after another *Edo-machibugyo* intervened.

Ohoka Tadasuke retired from *Edo-machibugyoa*, and so appeared to have lost his battle with the moneychangers. But the exchange rate was stable for nearly twenty years after his debasement. His stable-prices policy was a success (Ohishi, 1974: 145-157).

11

Because the Tokugawa Bakufu had strong power to control the *Daimyo*, it compelled the *Daimyo* to do *Sankinkoutai*. Every *Daimyo* had to stay in Edo for one year every two years. This cost too much for *Daimyo*. They needed to stay in good acommodation, spent much money for their travel, and by *Sankinkoutai*, Japan's main roads were improved very much. These lent positive effects to Japanese economic development at the cost of *Daimyo*. The costs all of the *Daimyo* had to bear might have been larger than those of wars, though we cannot estimate exactly. The Edo Bakufu did not plan to increase merchant wealth, but unintentionally it contributed to the growth of the wealth of the merchants.

Many *han* were in fiscal crisis through the eighteenth century. Although they promoted the cultivation of reclaimed land and new agricultural products, a lot of lower Samurai had to do part–time jobs as well as their ordinary duties in their *han*. *Han* sometimes issued *han-satsu*, which was a paper money that could be used only in the *han*'s territory, especially in the eighteenth and the first half of the nineteenth centuries. Nevertheless, the Shogun and the *han* could not solve the basic problem, for they could not increase tax revenue. If there had been many mines in Japan, han would not have needed *han-satsu*. But with the precious metals lacking, many of them had to issue *han-satsu.*

Japanese mine production was almost totally depleted after the 1750s, and so the Tokugawa Bakufu also should have issued fiat money. The Bakufu had much more credit than *han*, and Ogiwara Shigehide realised the importance of the money supply in order to escape from depression. He perhaps noticed that the Tokugawa central government and almost all of the *han* were in heavy deficit. Japan did not experience any 'Financial Revolution' (Dickson, 1967, 1993; Tracy, 1985; Fritschy, 2003) in the European sense. *Bushi* and *han* borrowed money but sometimes they did not repay their debts. They had difficulty borrowing money, owing to the decline of their trustworthiness as borrowers. It is true that for over two hundred years, Japan did not wage wars, but the central and local governments suffered from a lack of revenue. On this point, both the European and Japanese states had the same kind of the problem. European governments issued public debts, but the Japanese government did not do so.

It remains a riddle why the Bakufu did not issue paper money and the central and local governments did not impose high taxation on the merchants or traders. I suppose that this was closely connected with the rice-standard. If the governments had levied taxes on commerce, the rice-standard would not have been maintained, for the importance of rice as a source of revenue declined dramatically. The Bakufu had to continue the rice-standard. The Reformations of Yoshimune, accordingly, had to be carried out within this limitation. The process of import-substitution was to be completed by the end of the eighteenth century.

12

Since Japan's metal deposits were diminishing, it was forced to engage in import-substitution for gooks like cotton; cotton, sugar, raw silk, tea, and ginseng. The Japanese faced very serious problems in this regard. Owing to the *Seclusion-Policy*, Japan, unlike other Asian countries, could not invite Chinese specialists. The Japanese thus had to learn the methods of cultivation by books imported from China. Therefore, they required a great deal of time in acquiring the requisite knowledge on how to grow those crops. Making matters even worse, Japan's climate was sometimes unsuitable for their growth. Nevertheless, during the Edo period, Japan succeeded in its import-substitution policies with respect to those commodities.

Yoshimune was not interested in Chinese or Japanese poetry. His interests tended to more practical matters such as agricultural improvements. He read books, especially on law. He lived a frugal life. To soften the effects of bad harvests and famine, for ex-

ample, he introduced satsumaimo (sweet potato). He also planted ginseng to reduce its importation from Korea via Tsushima-han. Japan had traded in ginseng with Korea (Taya, 1963: 223-268), and had incurred an unfavourable balance of trade for its trouble. Yoshimune's attempt at this import-substitution was a success. Generally, the import-subtitution worked well.

Commodities such as cotton, sugar, raw silk, tea, and ginseng had been luxuries for the Japanese in the sixteenth century, but had then gradually become commodities that many more people could afford. Japanese soils was not always good fit for such crops. Nevertheless, the output of rice and of other agricultural commodities increased. The peasants appeared to have been forced to invest more time in production. Japanese agriculture became more labour-intensive. This is sometimes called the 'industrious revolution' (Hayami, 2003), and it is said that this occurred (if it occurred at all) in the Edo period (Hayami and Miyamoto, 1988: 50), becoming one of the foundations for later Japanese economic development. However, neither Hayami nor other researchers present concrete figures for peasant working hours. They insist that peasants, instead of using cattle, used their own muscle power to cultivate their rice fields. However, in Japan, such people usually had more than one occupation at a given time. They could be fishermen, miners, or engaged in any of a number of other types of work. The study methodology of Hayami et al., might not be suitable for research into the 'industrious revolution'. The focus, rather, should be a worker's (not a peasant's) total working hours. But this is extremely difficult. Thus, it is perhaps impossible to know whether the so-called 'industrious revolution' occurred or not. The productivity of agriculture itself increased, thanks to the improvement of agricultural tools and methods. Without doubt it is certain that the standard of living rose in the course of the Edo period (Kito and Hayami, 1988), partly owing to the government's light taxation levies on commerce.

Import-substitution has been a typical feature of industrialisation in many countries. Significantly, even Britain succeeded in import-substitution, particularly of Indian cotton cloth for British cotton cloth, the raw materials for which had been imported from North America. Import-substitution in Japan began to occur during the reign of Yoshimune. Similary, from the 1710s to the 1730s, Japanese raw silk took the place of its Chinese counterpart (Tamaki, 2009).

What is the difference between Yoshimune's Reformation and the other two? All three —*Kyouho no Kaikaku* (1716-45), *Kansei no Kaikaku* (1787-93), and *Tenpou no Kaikaku* (1841-43)— aimed at thrift. However, Toshimune uniquely attempted to develop the Japanese economy and effect constitutional renewal.

The society Yoshimune helped to maintain was a military society. He succeeded, more or less, in stabilising the Bakufu's constitution. His reformation contributed to the longevity of the Tokugawa Bakufu as well as to Japanese economic growth. As Ohishi Sinzaburo wrote, Yoshimune is the Shogun who restructured the Edo Bakufu (Ohishi, 1994).

References

BREWER, J. (1989). *The Sinews of Power: War, Money and the English State, 1688-1783*, London: Unwin Hyman.

DICKSON, P.G.M. (1967, rev.1993). *The Financial Revolution in England: A Study in the Development of Public Credit*, London: Macmillan.

FLYNN, D.O. and A. GIRÁLDEZ, (1995). "Born with a 'Silver Spoon': The Origin of World Trade in 1571", in *Journal of World History*, 6, 2, pp. 201-221.

FRITSCHY, W. (2003). "A 'Financial Revolution' Reconsidered: Public Finance in Holland during the Dutch Revolt, 1568-1648", in *Economic History Review*, 2nd ser., 56, 1, pp. 57-89.

FRITSCHY, W. (2009). "State formation and urbanization trajectories: state finance in the Ottoman Empire before 1800, as seen from a Dutch perspective", in *Journal of Global History*, 4, 3, pp. 405-428.

HAYAMI AKIRA (2003). *Kinsei Nihon no Keizai Shakai (Economic Society in Early Modern Japan),* Tokyo: Riktaku University Press.

HAYAMI, AKIRA and MIYAMOTO MATAO (1988). "Gaisetsu 17- 18 Seiki", in HAYAMI AKIRA and MATAO MIYAMOTO (1988). *Nihon Keizaishi 1: Keizai Shakai no Seiritsu (Economic History of Japan Vol. I The Birth of an Economic Society),* Tokyo: Iwanami Shoten.

IWAO SEIICHI (1959). "Japanese Gold and Silver in the World History." in *International Symposium on History of Eastern and Western Cultural Contacts*. Tokyo.

IWAO SEIICHI (1966). *Nanyou Nihonmachi no Kenkyuu (A Study on Japanese Town in Southeast Asia)*, Tokyo: Iwanami Shoten.

IWAO SEIICHI (1974). *Nihonno Rekishi 14 Sakouk (History of Japan Vol,XIV, Sakoku)*, Tokyo: Chuokoron Publisher.

KITO HIROSHI AND HAYAMI AKIRA. (1988). "Shomin no Rekishi Minseigaku (Demography and Standard of Living of the Public in Early Modern Japan)", in SHINBO HIROSHI and SAITO OSAMU (1988). *Nihon Keizaishi* 2: *Kindai Seichou no Taidou (Economic History of Japan,* Vol. II *The Beginning of an Modern Economic Society),* Tokyo: Iwanami Shoten, pp. 268-321.

KOBATA ATSUSHI (1968). *Nihon Kouzan shi no Kenkyuu (A study of Japanese Mines),* Tokyo: Iwanami Shoten.

MATHIAS, P. AND P. K. O'BRIEN (1976). "Taxation in Britain and France, 1715-1810: A comparison of the Social and Economic Incidence of Taxes Collected for

the Central Governments", in *Journal of European Economic History*, 5, 3, pp. 601-650.

MIYAMOTO MATAO (1988). *Kinsei Nihon no Shijou Keizai: Osaka Kome Shijo Bunseki*, (*Market Economy in Early Modern Japan: An Analysis of Rice Market in Osaka*), Tokyo: Yuhikaku Publisher.

NAKADA YASUNAO (1988). *Mitsui Takatoshi*, Tokyo: Yoshikawa Kobunkan.

O'BRIEN, P.K. (1988). "The Political Economy of British Taxation, 1660-1815", in *Economic History Review*, 2nd ser., 41, 1, pp. 1-32.

OHISHI SHINZABUROU (1963). *Kyoho no Kaikaku no Keizai Seisaku: Daiichibu Kyoho no Kaikaku no Nouson Seisaku (Economic Policy of the Reformation of Kyoho:* Part I: *Agricultural Policy of the Reformation of Kyoho)*, Tokyo: Ochanomizu Shobo.

OHISHI SHINZABUROU (1970). *Genroku Jidai* (*Genroku Period*), Tokyo: Iwanami Shoten.

OHISHI SHINZABUROU (1974). *Ooka Echizen no Kami Tadasuke* (*Ohoka Echizen*), Tokyo: Iwanami Shoten.

OHISHI SHINZABUROU (1977). *Edo Jidai* (*Edo Period*), Tokyo: Chuokoron Publisher.

OHISHI SHINZABUROU (1994). *Yoshimune to Kyoho Kaikaku: Edo wo Risutora Shita Shogun(Tokugawa Yoshimune: A Shogun Who Restructured Edo Bakufu),* Tokyo: Nihon Keizai Shinbun Sha.

PARKER, G. (1988). *The Military Revolution: Military Innovation and the Rise of the West, 1500-1800*, Cambridge: Cambridge University Press.

ROBERTS, M. (1967). 'The Military Revolution 1560-1660' in, M. ROBERTS, *Essays in Swedish History*, London: Littlehampton Book Services, pp. 195-225.

SAITO OSAMU and TOSHIHIKO SETTSU (2006). "Money, Credit and Smithian Growth in Tokugawa Japan", Discussion Paper: Hitotsubashi University Research Unit for Statistical Analysis in Social Sciences, 139, pp. 1-22.

SAKUDO YOTARO (1961). *Nihon Kahei Kinyushi no Kenkyu (A Study on the Histoy of Money and Finance in Japan)* Tokyo: Miraisha Publisher.

SATO TSUNEO and OHISHI SHINZABURO (1995). *Hinno Shikan wo Minaosu (Were Japanese Peasants so Poor in Edo Period?)*, Tokyo: Kodansha.

STEENSGAARD, N. (1990). "Opdagelsernes plads i verdenshistorien: Varer ædelmetal og tjenesteydelser i interkontinental handel før1750", in *Hisrodisk tidsskrift Handel, capital og kredit*, pp. 5-30.

TAMAKI TOSHIAKI (2007). "Comparative Perspectives on the 'Fiscal Military State' in Europe and Japan", in R. TORRES SÁNCHEZ (ed.). *War, State and Development: Fiscal Military States in the Eighteenth Century*, Pamplona: EUNSA, pp. 409-435.

TAMAKI TOSHIAKI (2011). "A Fiscal-Military State without wars: the relations between the military regime and economic development in Tokugawa Japan" S. CONWAY and R. TORRES SÁNCHEZ (eds.). *The Spending of States. Military Expenditure during the Long Eighteenth Century: Patterns, Organisation, and Consequences, 1650-1815,* Berlin, VDM Verlag, pp. 155-179.

TASHIRO KAZUI. (2001). "17-18 Seiki Higashi Ajiaikinai Koueki ni Okeru Nihognin", (Japanese Silver in East Asia Trade from the Seventeenth to the Eigheteenth Centuries)", in HEITA KAWAKATSU and TAKESHI HAMASHITA (eds.), *Ajia Kouekiken to Nihan Kougbouka. 1500*-1900(*Asian Trading Area and Japanese Industrialisation*), Tokyo: Fujiwara Shoten, 129-156.

TAYA HIROKICHI (1963). *Kinsei Ginza no Kenkyu (A Study on Ginza in Early Modern Period),* Tokyo: Yoshikawa Kobunkan.

TRACY, J.D. (1985). *A Financial Revolution in the Habsburg Netherlands: Renten and Rentiers in the County of Holland, 1515-1565*, Berkeley and Los Angeles: University of California Press.

TSUJI TATSUYA (1963). *Kyoho no Kaikaku no Kenkyu (A Study on the Reformation of Kyoho)*, Tokyo: Sobunsha.

TSUJI TATSUYA (1985). *Tokugawa Yoshimune*, New Edition, Tokyo: Yoshikawa Kobunkan.

WAKITA OSAMU (1977). *Kinsei Houken Seiritsushi Ron: Shokuhou Seiken no Bundeski (Feudalism in early Modern Japan: An Analysis of Oda and Toyotomi Constitution)*, Tokyo: Tokyo University Press.

Contractor State and Mercantilism. The Spanish-Navy Hemp, Rigging and Sailcloth Supply Policy in the Second Half of the Eighteenth Century

16

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Procuring military supplies for the armed forces posed a complex make-or-buy dilemma for the state. All European states were aware that these were the only two options but the choice between them was crucial because of all the possible knock-on effects. If the state opted for direct production it could keep a closer eye on the quality of the product obtained but it was obliged to set up and maintain facilities and human teams and to finance and insure the whole production process. This option enabled it to ensure supply but the cost was uncertain and it also ran the risk of cramping private enterprise. Conversely, if the state opted to buy the armed force's provisions, then the ripples of state demand ran more clearly through the economy as a whole but at the cost of less control and untrustworthy supply at moments of peak urgency. As there was no other choice, each state had to plump for one or the other. We believe that one way of understanding the nature of the contractor state is precisely a close study of how states coped with this dilemma (Torres, 2000).

The make-or-buy decision had to be made by all states across the board, in all historical periods, political regimes and for any type of product. Develop as it might, the supply policy never really escaped from this fundamental dilemma. The decisions taken were flexible and reversible, pivoting around this constant dilemma and giving rise to different solutions in each particular historical context, while also laying down the conditions underpinning the whole state machine. The situation and particular approach adopted could be explored in each national case. On the basis of the Spanish eighteenth-century case, however, the keys for understanding how the state resolved its procurement need seem to lie in the particular mercantilist context it was operating in and the perceived trustworthiness of the provisioning market. The international

military supplies market was still embryonic; this fact, together with the states' mistrust of existing possibilities forced each one to set its solution within a national context, including that nation's colonies. The limitations of the nascent international supply market therefore brought the national market to the fore, worked only by private agents who were capable of connecting up to distant national areas. But the very priority of the national market also brought out the shortfalls of working with national agents. There was a constant temptation to fall back on direct state administration as a way of side-stepping the weakness of the production market and entrepreneurship, especially when mercantilist ideas of protection and intervention held sway. The mistrust of international markets and qualms about national agents spurred solutions that, at least in the Spanish case, reinforced state intervention, either by direct state production or by shoring up the entrepreneurs. We argue here that the trend towards monopoly evinced in the development of the Spanish contractor state was not an intrinsic condition of this type of state or its political constitution but rather the result of that dilemma, i.e., how the Spanish state solved the military procurement need.

To analyze this problem we are going to study the policy for supplying the Spanish navy with hemp, rigging and sailcloth during the second half of the eighteenth century. We have chosen this product because it seems to hold some keys to the reason why the Spanish state kept switching tack. We believe that the overarching ideas of economic policy were a constant factor in these changes but also that political urgencies and economic possibilities continually prompted reinterpretations of those ideas and help to explain the solutions adopted.

1. The ideas of the contractor state

The supply policy for such a strategic policy as hemp was shot through with mercantilist criteria right from the start of the eighteenth century. The prime Spanish thinkers of the early eighteenth century had already laid down the basic principles that were to govern the supply of this product. Jerónimo de Uztáriz, in 1724, clearly mapped out the problem. In his opinion Spain had no limitation on growing and making all the hemp it needed. The plant could perfectly be grown in many Spanish regions, and production in Spain had many advantages in it favour. First and foremost this policy would ensure regular supply of a strategic product for the Spanish navy. Uztáriz was keen to free this product from the yoke of imports; at that time the lion's share came from the Baltic and secondly from Italy. Furthermore, the manufacture of rigging and

sailcloth would also encourage the development of the merchant navy and stimulate trade, a sine qua non in Uztáriz's economic thought. Lastly, national production offered another unquestionable advantage: it would avoid import payments, the *'main drain on our economic resources'*.[1] In other words, the main driving forces behind these ideas were the national security policy and stimulation of the national economy.

Uztáriz's solutions of encouraging national hemp growing, limiting imports, staunching the silver drain and boosting national trade and industry were the pivotal ideas of a clear mercantilist school of thought, which saw in the state's demand for hemp, sailcloth and rigging a means of promoting national wealth. The ideas were not radically new; in fact, Uztáriz himself referred at times to the benefits that, in his judgement, were already accruing from the application of the ideas and principles that he championed.[2] This writer echoed the state's attempts to whittle down the Dutch monopoly on hemp supplies and the *Junta de Comercio*'s efforts since the 1670s to stimulate private initiative, mainly by Dutch entrepreneurs, to spread the farming and production of hemp in Spain.[3] Uztáriz, in fact, drew on and plugged into the changes in Spain's political and economic thinking that had now been in train since the last third of the seventeenth century.[4]

So important were Uztáriz's political ideas on hemp that they were maintained almost unmodified during the rest of the eighteenth century.[5] Spanish politicians and thinkers echoed and endorsed Uztáriz's arguments up to the end of the century as the best way of solving the hemp supply problem and also the most efficient means

1 Uztáriz (1742: 163). The work of this author is analysed in Fernández Durán (1999).

2 '*thereby eschewing the drain of a great deal of money to cover the value and traffic thereof, and also of masts and planking, and of rigging, tar and pitch (…) in view of the great importance of strengthening in Spain the manufacture and provision of all these goods, which are equally conducive to useful trade and assurance by Your Majesty of dominion over both seas (…) as is only to be expected by the special attention to be paid by Your Majesty to the importance of the Navy*', Uztariz (1742: 164).

3 A summary of the literature on the creation of rigging and canvas in Galicia is given in Díaz (2010: 197-209). This should be rounded out with the account of the dependence on Dutch supplies of this project, given in Sanz Ayán (1992).

4 For more information on the Colbertist influence on the renewal of mercantilist thought in the second half of the seventeenth century, see González Enciso (2000: 141-150).

5 In general, Uztáriz's thinking had a tremendous influence on Spanish eighteenth century thinkers and his ideas were brought to a very wide audience within Spain and also abroad by way of translations (Carlyon, 2009). The English translation came out in 1751 and the French in 1753; see Guasti (1998).

of boosting economic development. Bernardo de Ulloa and José del Campillo faithfully churned out Uztáriz's ideas during the first half of the eighteenth century. Both insisted that the best way of ensuring such an essential Navy provision was the adoption of a national policy in which the state would make sure that the product was grown and made in Spain (Díaz, 2010: 186-187). This policy was also extended further afield to Spain's colonies. Bernardo Ward and Campomanes pointed out the need for encouraging this production in the Americas to avoid the high cost of buying it from European merchants in American ports (Serrera, 1974: 61). Campillo, who was also a member of the government, even argued that hemp growing in the Americas was more beneficial than cotton farming (Díaz, 2010: 186).

It was not only the main writers and thinkers who stuck close to the ideas of Uztáriz. Military high-ups and the decision makers in Spain's naval policy also repeated throughout the whole century the mercantilist principles laid down in Uztáriz's magnum opus *Theórica*. From 1755 to 1772 the mariner and scientist Antonio de Ulloa laboured on a prolix work in which he compared the European navies, their forces, institutions and supply arrangements. Here he set out once more an authentic mercantilist project for state intervention and promotion in the national production of hemp, rigging and sailcloth. Ulloa once more fed from Uztáriz's ideas, but this time insisting on and demonstrating the advantageous quality of Spanish hemp; Uztáriz in fact had himself touched on this advantage when he argued that rigging and sailcloth produced in Spain were superior to the European product *'due to the forwardness of our Hemp'*.[6] Ulloa, like the good scientist he was, conducted a series of experiments and compared the properties of the products made with hemp from various parts of Europe. He came to the conclusion that the rigging and canvas produced from '*national*' hemp were superior because they were '*more resistant*'. His recommendation left no room for doubt about the mercantilist approach, *'which does not allow the use in Spanish shipyards of both rigging and canvas made from other than national hemp, which, albeit more expensive, will always come out cheaper in the long run due to the greater safety and duration of the masts and rigging'* (Ulloa, 1773, 1995: 208). The quality seemed to justify a projectionist supply approach. Ulloa also argued that hemp cultivation would pose no problem, even going so far as to argue that enough raw material could be obtained, *'for supplying the whole of Europe'* (Ulloa, 1773, 1995: 208).

6 Uztariz (1742:163). The same idea on p. 216.

It was precisely this naval thinker, Antonio de Ulloa, together with Jorge Juan, who most urged politicians to try to spread hemp production to the Americas, especially from the mid-eighteenth century onwards and particularly in Cuba. The all-powerful minister Marqués de Ensenada left no doubt about the mercantilist principles inspiring attempts to promote hemp cultivation in Havana, *'to ensure reliable hemp supply for all the ships of the Royal Navy and merchant fleets and thereby enough rigging to fit them out at a much lower cost to the Real Hacienda (Royal Exchequer)'*.[7] The same mercantilist principles lay behind the attempt to extend hemp cultivation and production to Mexico in 1777, when the Indies Minister José de Gálvez justified it on the grounds that it was the *'Crown's express will to spread production thereof to supply the royal shipyards back in Spain'* (Serrera, 1974: 96).

Examples of the enduring imprint left by Uztariz's mercantilist principles are rife right up to the end of the eighteenth century. In 1781 the *Secretario de Marina* (Navy Minister), Marqués de Castejón, told the *Secretario de Hacienda* (Finance Minster), Miguel Múzquiz, that the best and only valid supply policy was to buy in Spain all the hemp possible, for the simple reason that it was useful *'to sustain our Navy, national trade and avoid in the future the drain of so many millions outside the kingdom'*.[8] These mercantilist ideas were yet again endorsed by the next Navy Minister, Antonio Valdés, when he called for more promotion of hemp production on the grounds that any state expense in hemp farming would turn out to be useful for the national economy, *'the initial outlay remaining within the national money supply and eventually making its way back to the treasury by way of taxes as would any expense abroad in the longer term'*.[9] This mercantilist school of thought eventually filtered down through the whole society. In 1778, Juan Tomás Pezzeti, a Granada merchant, sent to the state a report drawn up in the Economic Society of Seville, asking the government to support hemp farming in Andalusia. His arguments could hardly be more mercantilist or closer to the ideas of Uztáriz and the naval thinkers and senior politicians that had preceded him throughout the century. He encapsulated this way of thinking with his final conclusion that, if Spain obtained this supply, *'What a glut! What a blow against the nations of the north'* (Serrera, 1974: 35).

7 30-101-1748, quoted by Díaz (2010: 99).

8 Castejón to Múzquiz, 2-10-1781. Archivo General de Simancas (AGS), Secretaría y Superintendencia de Hacienda (SSH), legajo (l.)51

9 1784, quoted by Díaz, 2010: 110.

2. The Contractor State in action

There is no doubt about the eighteenth-century consensus in Spain over the political and economic advantages of intervening in the navy's hemp supply. All the examples we have found tackle the problem from a markedly mercantilist viewpoint. It behoved the state to intervene in the promotion of hemp cultivation and the stimulation of the production of rigging and canvas, doing so on a national scale taking in the nation's colonies too. This long and enduring consensus no doubt cloaks an ongoing failure. If the arguments had to be repeated ad infinitum this was mainly because they had never been properly enforced. Although everyone advocated a *'national hemp'*, this never actually became available in sufficient amounts to supply the navy. In 1767 the *Intendente de Marina* (Navy Intendant) of the *Departamento Marítimo de Cádiz* (Cádiz Maritime Department) pointed out to the Navy Minister, Julián Arriaga, that it could not eschew hemp imports from Europe because, *'the Cádiz rigging factories need hemp and there are no prospects of supplying it from the harvests of Spain'*.[10] Along the same lines, the Marqués de Monteverde expressed to Arriaga his opinion that, *'the rigging and even canvas factories should always be supplied with hemp from the north, since the product is more resistant and cheaper than the home product'*.[11] When the national production is examined in detail it is clear that it could not possibly cater for the whole demand. The evidence is overwhelming. At a moment of high hemp demand for the navy, such as the outbreak of war against Great Britain in 1779, the *Junta de Marina* (Navy council) of the Department of Cartagena set out its detailed hemp budget at 25,045 *quintales* to produce the necessary canvas and rigging, but recognised that Spain would be able to produce, *'on a prudential calculation'*, no more than 9,000 *quintales*.[12] Similarly, the

10 Gerbaut to Arriaga, Cádiz, 30-10-1767. Marqués de Monteverde to Arriaga, 22-4-1767, AGS, Marina, l. 613

11 Gerbaut to Arriaga, Cádiz, 30-10-1767. Marqués de Monteverde to Arriaga, 22-4-1767, AGS, Marina, l. 613

12 According to the budget set out by the *Junta de Cartagena*, the complete sail area of a 70-gun line-of-battle ship called for 19,000 *varas* of fabric made from hemp while a frigate needed 13,100 *varas*. In all, to make the 140,237 *varas* of fabric needed by the department for the coming year, it would be necessary to buy 2,804 *quintales* of hemp, which, at a price of 190 *reales de vellón* (rsv) per *quintal*, came out at 532,760 rsv. Likewise a completely fitted out line-of-battle ship needed 2,400 *quintales* of rigging, and a frigate 1,200 *quintales*. In all, Cartagena needed to make a total of 22,241 *quintales* of rigging for 1779; this involved purchasing the same number of *quintales* of hemp, which, at 162 *reales*, came out at 3,603,042 rsv. Manuel Travieso, Cartagena 8-8-1778. AGS, Marina, l. 591.

national hemp that the navy thought could be mustered for Ferrol in this same year was only 3,500 *quintales*, from Aragon, against the 20,000 *quintales* that had to be bought in Riga.[13]

We believe that the main reason for this yawning chasm between what was sought in theory and what was finally possible in practice is the way these ideas were applied to Spain's actual situation. Although Uztáriz laid out the objectives clearly, the supply policy pursued during the first half of the eighteenth century had more to do with inertia than change. Everything seems to show that the much-vaunted *'Bourbon reformism'* did not substantially change the methods handed down by the Hapsburgs for obtaining hemp, rigging and sailcloth. The state continued to fall back on a set of private *asentistas* (state contractors) for supplying specific shipyards under fixed-term contracts. Díaz Ordoñez's studies have shown that the *asientos* (state supply contracts) of hemp, rigging and canvas followed each other in an unbroken sequence up to the middle of the century (Díaz, 2010: 197). The only significant new development was the greater presence of Spanish businessmen in these *asientos*. This particular supply in fact followed the general trend in military supply arrangements as a whole, with a steady replacement of foreign entrepreneurs by Spanish ones, a veritable *'nationalisation'* of the businessmen working with the state (2002, 2011). The Treaty of Utrecht trimmed Spain's European empire and deterred foreign entrepreneurs, mainly Dutch and Flemish, from taking part in the Spanish troop supply business. The process of replacing foreigners had started during the Spanish War of Succession, when groups of Spanish businessmen were rewarded for their loyalty and support for Philip V in the war, while the French *asentistas*, who had also collaborated with the young French king during the war, were gradually ousted after the conflict. The military supply of the armed forces became more than ever an affair of mainland Spain, run mainly by Spanish businessmen (Torres, 2000: 97). The state continued to turn to private *asentistas* to ensure the supply of hemp, rigging and canvas, but the switch in the imperial geostrategy and the war-forged loyalties between the crown and Spanish *asentistas* favoured a systematic change in the origin of the entrepreneurs. The system in itself did not change, only the makeup of the agents who sustained it. To some extent the change did represent a mercantilist triumph, in terms of the *'nationalization'* process, but the supply system itself did not change.

13 Junta de Ferrol 15-9-1778, AGS, Marina, l. 591.

The Bourbon state continued to turn to private *asentistas* as its first-resort navy hemp supply method, even though they were now Spanish. The only exception to this predominance of Spanish hemp *asentistas* was the *asiento* signed by the state with an English merchant, John Burnaby, for the provision of hemp and rigging in the Cádiz shipyard, 1732-1738 (Quintero, 2003; Díaz, 2010:270). The system was also maintained in the Americas where the state preferred to entrust the provision of necessary rigging for the Havana shipyard to Spanish companies, the Compañía Guipuzcoana de Caracas and the Compañía de La Habana (Gárate, 1990 and 1993). Although all these Spanish companies and entrepreneurs at some moment presented the state with projects and ideas for promoting hemp cultivation in Spain or the Americas and for the manufacture of sailcloth and rigging, the truth is that they all ended up buying most of the products they needed in the European markets. The *asentistas* who supplied the shipyards of Ferrol and Cádiz resorted mainly to the Baltic and Holland; those who supplied the Cartagena shipyard, to Italy and the Havana shipyard suppliers to France and Holland.[14] The entrepreneurs fitted in with the mercantilist ideal but the product was still procured and made outside Spain.

If the advantages were so patent, why were no firm measures taken to promote national production at home or in the colonies? The answer might lie in the *asientos* system itself. The *asentistas* often won the contracts on the strength of a complex intermeshing of various state services. Take the case of the Goyeneche *asiento*. After the end of the War of Succession, his hemp *asiento*, as with the concession of other military supply contracts, was clearly a way of fobbing off this entrepreneur for state debts run up in other *asientos* or services (Aquerreta, 2001). Aspiral of mutual dependence was built up between the state and this *asentista*, leading to the joint award of military-supply and revenue-farming *asientos*. The contract awards were justified on the grounds that the state thereby managed to stretch its credit facilities while also ensuring that the supply was still effected. Under these conditions of mutual dependence the state was incapable of reining in the *asentista* to a national arena or steering the business activity towards a promotion of national industry. The state had to settle for the hemp or rigging being made available in the corresponding navy store without being able to set nicer terms and conditions. Likewise, for the *asentistas* themselves, these contracts

14 To give only one example: in 1740 the Compañía de Caracas was asked to supply 12,000 *quintales* of rigging for Havana's 20-ship fleet the company responded by mobilising its correspondents in France to meet the demand (Díaz, 2010: 395).

were a lucrative business because they enabled them to continue working, sustain the whole set of their activities, extend their business abroad, by means of a network of correspondents, and branch out into other areas, including the illegal exportation of silver, justified now on the grounds of the need of making purchases abroad (Torres, 2003). Under these circumstances, the *asentistas* did not hesitate to buy hemp and rigging at the lowest prices, and these were always to be found in European markets, as pointed out by Ulloa himself halfway through the century and borne out by other studies (Quintero, 2004: 467; Serrera, 1974: 95).

The system brought in no substantial changes in terms of implementing mercantilist ideas. The situation changed in the mid eighteenth century when a shipbuilding plan was roughed out, showing, among other things, the urgent and strategic need of securing a national supply of hemp and sailcloth (Merino, 1984: 267). Navy demand was obvious, but why now, given that back in the 1730s there was already a brisk Patiño-promoted shipbuilding programme and the hemp supply policy could have been overhauled to meet it? We believe that the answer lies not so much in the navy's demand but the state's mid-century chance to break the mutual dependence spiral between state and *asentistas*. From the late 1740s onwards the state made considerable progress in its control over fiscal revenue by bringing in direct administration of the *Real Hacienda*'s most important revenue sources. From then on the state ceased to depend on the services of businessmen to collect the state's taxes and therefore no longer had to offset its debts and payment defaults by granting military supply contracts. The state had broken the vicious circle. The state was now able to launch itself as an entrepreneur and provide itself directly with the supplies it needed. This also enabled it, at last, to implement its firmly-held mercantilist ideas.

From the mid eighteenth century the Spanish state took two crucial measures in terms of the supply of hemp, sailcloth and rigging: it set up rigging and canvas factories in the shipyards and promoted hemp farming in the Spanish regions most apt for the crop and with the longest-standing tradition: Granada, Catalonia, Aragon and Valencia. The setting up of the factories inside the shipyards was a simple step but it threatened ruin for the few private factories previously existing in the hinterland (Torres, 2000). We know about the case of Cádiz, for example, where in 1754 even the Navy Intendant of Cádiz himself came out in defence of these private factories, for fear of limiting even more a scarce resource. The Intendant opposed the idea of bringing one of these factories inside the shipyard, classifying it as a, '*useful factory, that could almost be said to be perfect as it is*' (Merino, 1980: 107). Despite the Cádiz Intendant's gloomy forebodings,

the factories functioned and performed with no great problems for the rest of the century. The navy's problems did not stem from the factories but rather the lack of fleetfootedness for coping with demand surges, an essential factor for any navy. The factories in the three departments almost cornered the complete production. With the dismantling of the existing private factories there was now no real leeway for dealing with any urgent navy demand surges. The manufacturing monopoly also extended to the Americas. When it was decided in 1777 to set up hemp farming on a mass scale in Mexico, Venezuela and Louisiana, this was done with the idea of producing a supply of raw material for the shipyard factories back in Spain. The outbreak of war with England forced the government to allow rigging and canvas production in the Americas. A great factory was set up there but on the express condition that, *'at the end of the war any flax and hemp bought on account of the Real Hacienda should be sent back to Spain'*.[15] What was actually done at the end of the war was to close down the factory, despite the high cost of setting it up and a possible civil use (Serrera, 1974: 231). In this case a '*perfect monopoly*' was sought, in which the colonies would supply the necessary hemp for the shipyard factories.

The trouble with a '*perfect monopoly*' is that any variation in the production conditions of the state factories had disastrous effects on the navy's operational capacity. Take the following example. In summer 1779, soon after the outbreak of war with Great Britain and faced with the urgent need of fitting out a fleet to launch an attack in the English Channel, the Navy Council of the Department of Cádiz recognized that it could not produce any more canvas or rigging due to a lack of workers. The *Junta* could come up with no solution to the manpower shortage in order to increase production and meet the demand; neither were there any other private factories to turn to. Throwing in the towel, the *Junta* left it *'up to will of Your Majesty to procure the manufactured rigging'*,[16] this in practice meant buying sailcloth and rigging on the international markets, in this particular case massive fabric purchases in Amsterdam.[17] The navy officials were unable to produce the necessary goods in their shipyards, but recognised

15 Real Orden 6-11-1781; see Serrera (1974:198).

16 The need added up to 25,400 *quintales* of rigging and, *'the department's factory, due to lack of manpower, can produce no more than 14,000 quintales a year … 94,000 varas of canvas that can be made only in the department due to lack of workers'.* Junta de Marina de Cádiz, Isla de León 24-8-1779, AGS, Marina, l.592.

17 Zambrano to Múzquiz, 21-1-1778. AGS, SSH, l. 268.

that they had no way of making up the deficit elsewhere. Or, what comes to the same thing, they showed a notable incapacity to respond flexibly to the navy's fluctuating demand. In fact, this incapacity forced them to change tack and from the 1770s onwards the shipyard activities where gradually hived off to private firms outside the shipyards (Torres, 2000).

Despite these risks of production rigidity, the true problem for the factories, for the navy and finally for Spain itself arose in obtaining the necessary hemp for producing the rigging and sailcloth. All the mercantilist approaches worked from the assumption of a national hemp supply to head off the need of buying abroad. To this end the state, in fact the navy, organised a system for encouraging the growing and purchasing of hemp in the producing regions. A system of navy commissioners was set up, one for each navy department, to make all the necessary purchases for supplying hemp to the factories of the corresponding shipyards. The commissioners would take on responsibility for boosting hemp growing in the assigned zone, payment of the hemp farmers and transport to the shipyard factories. The whole system, from purchase to manufacture, thus remained under the direct control of the navy administration.

However, the system, once set up, did not have the desired result. Antonio de Ulloa, the naval thinker who had most championed greater state intervention in the hemp farming enterprise, had to acknowledge in 1773, *'to this end hemp was planted (in) Granada, Valencia, Murcia and other provinces from the 1750s onwards and a sailcloth factory was set up. One and the other made notable progress at first; but afterwards, having valiantly met the propositions of the* asentistas *—who only seek their own vested interests, at the treasury's cost— the hemp plantations have decreased, undermining the whole manufacturing process'* (Ulloa, 1995: 217).

This naval thinker, with an unrivalled grasp of the Spanish navy's real situation, was in no doubt that the party to blame for this failure was the self-seeking *asentistas*. According to Ulloa, the state was balked in its mercantilist plan of ensuring a reliable national supply of rigging and canvas because it clashed with the vested interests of the *asentistas*, who, from Ulloa's viewpoint, failed to understand that the state's interests should be paramount. This type of reasoning, public interest versus private interest, was very much to the fore among Spanish political thinkers of the 1730s, frequently denouncing the profits creamed off by the *asentistas* at the *Real Hacienda*'s expense (Fernández, 1977). This was without doubt an idiosyncratic view of mercantilism, in which national wealth should be created mainly by the state instead of the sum of private and public interest, as would seem to be the case of English mercantilism

(O'Brien, 2006; O´Brien and Durán, 2010). Despite Ulloa's direct indictment of the *asentistas* for the failure of the state, we believe that part of the blame should also be laid at the navy's door for the way it acted as "contractor state" in its goal of ensuring the hemp supply.

The moot point here is why the navy commissioners failed in the remit of encouraging hemp production and its purchase for the navy. Everything seems to suggest that the advent of the navy commissioners in the fields of Spain sparked off opposition from the private merchants who bought up hemp for the private factories and the guilds that used this raw material. Merino describes the conflict that arose between the navy and the Ropemaker's Guild of Castellón in 1759 (Merino, 1977: 572). The conflict could be construed as a consequence of the public and private competition for a resource as yet little developed. But in fact this conflict was caused by the navy's attempt to corner the whole harvest. The trouble was that this was no mere teething problem in the new policy; it became a habitual event over the next decades. Words like "embargo" or "rate", "fixed prices" began to crop up more and more in the commissioners' reports to the Navy Ministry. The cause of the problems was not so much the increase in demand in itself but rather the way the commissioners turned up in the fields to requisition the whole harvest in exchange for a fixed below-market price. Small wonder, then, that the farmers *'should be loathe to increase the area sown with hemp and prefer to sell it to private merchants'* (Quintero, 2004: 463). The correspondence of these commissioners with the councils of the navy departments gives us a better idea of the real nature of the problem.

The navy commissioner's management task was always a tricky affair due to the hornet's nest of problems they stoked up on the ground and the differences in the regional conditions under which each commissioner operated. Nothing could be regulated in a single, across-the-board way and each purchase called for a certain flexibility, which a merchant might understand and exploit but not commissioners who were severely shackled in their way of working. The simple event of transporting the hemp was also subject to huge regional variations. The Aragon hemp for Ferrol, for example, was cheaper to convey by sea via the Mediterranean than from Bilbao.[18]

18 According to an appraisal of 1768: '*Aragon hemp, although conveyed through Bilbao on commission to Ferrol, comes out very expensive; shipping it through the Mediterranean comes out much cheaper'.* It is estimated that freightage to Ferrol increased the price by between 9 and 12 %. AGS, Marina, l. 613,

That said, these commission's main problem was always the economic side. The hemp buying commissioners had to go to spots well off the beaten track, or at least well off the commercial circuits, where it was difficult to draw a bill of exchange or find any type of credit facility. They worked with suppliers, farmers or farmworkers (journeymen or laborers) who accepted nothing else than cash payment. The hemp purchasing commissioner in Catalonia told the Intendant of the Maritime Department of Cartagena that he needed money in cash, *'because neither the farmworkers, carters, workers or craftsmen are people who can work or hand over their fruits without receiving first their respective stipends'*.[19] The money was needed at the point of sale but the navy's economic system was sailing in precisely the opposite direction, i.e., concentrating all economic wherewithal and payment capacity in the department capitals of Cádiz, Ferrol and Cartagena. By restricting naval treasuries to the departments alone and conceding greater managerial responsibility thereover to the councils of the Maritime Departments, the state aimed to increase the navy's control over its own economic resources. The trouble was that this made the navy commissioners dependant on the money supplied by the departmental treasuries (Torres, 2011). The pretext given was to prevent any embezzlement by the commissioners but in practice it meant that the commissioners were forced to channel all their payments through the departmental treasuries and this was totally inappropriate for the sellers they had to deal with. Very few of those who sold hemp to the commissioners were prepared to traipse off to the departmental capital to be paid for their services. This was a world of small producers who lived on cash not credit.

If the commissioner turned up cash in hand, the farmers did not seem to be loathe to sell their hemp harvests. In fact they jumped at the chance because it was a source of ready money in their cash-strapped lifestyles and helped them pay their taxes. The Granada hemp commissioner pointed out that the producers will always sell for they need the money to pay their taxes, *'the Owners (of the hemp) need the money urgently to pay their royal taxes'*.[20] This was echoed by the navy minister of Barcelona when referring to the readiness of Catalan farmers to sell their hemp, *'because they can thereby pay off their taxies and levies'*.[21] But the farmers needed to be paid on the spot and in cash,

19 Agustín Navarrete to Alfonso Alburquerque, Barcelona 28-8-1781, AGS, SSH, l.51.

20 Esteban Gaztambide to Castejón, Granada, 19-10-1781, AGS, SSH, l. 51.

21 Secretaría de Marina to the Comandante General de Marina de Cartagena, Madrid 23-2-1781, AGS, Marina, l.593.

not with bills of exchange or in some far-off city. The option of middlemen merchants might have been explored as a solution to this situation, to pick up the money in the naval treasuries and pay it on the farms but the spirit of direct administration ruled out the idea of paying extra commissions to local merchants.

Although the commissioner's lack of liquidity was the most glaring problem, the government never tackled it at all and even exacerbated it with the wrong makeshift solutions. For example the government once tried to pay for its hemp purchases with currency that had been withdrawn from circulation *moneda de vellón*. Francisco Cantos, the hemp purchasing commissioner of Aragon expressed in no uncertain terms the huge scorn of the "public" (farmers) for this currency and he predicted that if hemp farmers were finally paid with *moneda de vellón, 'the farmers will then refuse to sell their hemp harvest to the king rather than accept the currency'*.[22] Much the same happened when an attempt was made to pay hemp farmers with *Vales Reales*, interest-bearing public-debt securities of a high face value for any farmer. The navy hemp-buying commissioner in Granada acknowledged that no farmer would accept the *Vales Reales*. Under this plan the only places they could be cashed in were Malaga or Cadiz with the caveat that they would lose *'over twenty percen'*.[23] The government rejected this solution because it would not only represent a loss but would also increase public scorn for *Vales Reales*, and the navy commissioner was forbidden to discount them. The result was that the hemp commissioner now had a hemp-buying means of payment that he could neither use for that purpose nor cash in. He naturally had serious problems in his remit of supplying Cádiz with hemp.

As well as the serious liquidity problem, hemp purchases had their own expenditure timetable, bound up with the seasonal pattern of hemp harvests in terms of production, processing and transport. This did not necessarily tally with the pattern of funding availability within the Maritime Departments. The hemp purchasing commissioners were continually asking the navy high-ups for massive dispatches of cash before beginning to collect the harvest, *'because this helps greatly to drive down the price and stockpile the harvest'*.[24] Experience had shown that the best way of working was for the commissioner to reach a harvest-buying commitment with the biggest possible number of farmers, otherwise the product would become more scarce and would then have to be *'bought*

22 Francisco Cantos to Francisco Montes, AGS, SSH, l. 51.

23 Secretaría de Marina to Gastambide, Madrid 10-12-1782, AGS, Marina, l. 594.

24 Castejón to Múzquiz, 1-12-1781, AGS, SSH, l. 51.

at double the price'.[25] In some cases, to convince farmers to reserve their whole harvest for sale to a shipyard, it was even suggested that the whole supply should be bought regardless of the quality.[26] In practice a veritable purchasing monopoly was the aim, on the strength of the promise beforehand of immediate payment. The commissioner Esteban Gaztambide asked for more money to buy the 1781 Granada hemp harvest because he believed that, *'if we let only a small part of the harvest be sold elsewhere due to lack of funds this will set a terrible example in price terms; to avoid this I have bought up the whole harvest down to the poorest quality*'.[27] The same stance was taken by the navy minister of Barcelona, Agustín de Navarrete, who, like the rest of the commissioners, asked for hemp-purchasing funds to be forwarded beforehand because, '*not having the funds now means paying more in the future*', and he also claimed that he had to do it, '*because it avoids the crop being sold off to other merchants from whom we would eventually have to buy it back at a higher price*'.[28]

The hemp buying commissioners needed cash, furnished with enough flexibility to be able to outmanoeuvre any other purchaser in the farming areas. When neither cash nor flexibility was forthcoming, the problems began. The navy's economic system had evolved in the direction of leaving it up to the shipyards' *Juntas de Marina* to manage most of their economic resources (Torres, 2011). Each maritime department worked with a fixed budget, approved by the Navy Ministry, which the Finance Ministry then simply rubber stamped and enforced. Any modification of this budget was a longwinded business that was unlikely ever to be quick and flexible enough for the commissioners on the ground. This cramped the commissioners' style and they fell increasingly out of synch with the shipyards. Despite the strategic importance placed on the purchase of Granada hemp by the Cádiz *Junta de Marina* it had to bow out, declining to fund, *'the necessary amount for purchasing hemp in Granada due to ignorance of the portion that might be stockpiled*'.[29] The surprising result of all this was that the shipyards no longer

25 Castejón to Múzquiz, 1-12-1781, AGS, SSH, l. 51.

26 *'for having pledged in the king's name to take all the hemp offered'* Castejón to Múzquiz, 2-10-1781, AGS, SSH, l. 51.

27 He was buying at 58 *reales* per *arroba*, and had to avoid showing any *'weakness or allowing owners any leeway to sell to outsiders, which has surreptitiously been done already (with) some batches at 85 reales per arroba'.* Esteban Gaztambide to Castejón, Granada, 19-10-1781, AGS, SSH, l. 51.

28 Secretaría de Marina to the Comandante General de Marina de Cartagena, Madrid 23-2-1781, AGS, Marina, l. 593.

29 Junta de Marina de Cádiz, Isla de León 6-4-1781, AGS, Marina, l. 593.

knew how much national hemp they could work with. Worst of all, this uncertainty accelerated the last-ditch solutions of harvest embargoes and seizures. The main reason for this mess was undoubtedly the purchasing policy bereft of cash or flexibility but the navy's demand also became a problem for Spanish hemp producers. A telltale sign here is the clearly negative assessment of this state intervention in the national hemp market made in the early nineteenth century by the Finance Minister, Canga Argüelles, *'the spread of hemp farming in Granada has been outrageously hampered by our own royal navy. Not content with forcing farmers to sell all their produce at a fixed price, it also laid down the farming and processing method and vexed them in many other different ways*'.

If we return to Antonio Ulloa's indictment of the *asentistas*, blaming them for the state's failure to ensure navy supplies of hemp, sailcloth and rigging, our analysis of how production and purchases were run shows that part of this blame must also be laid at the door of the state and navy. The practical result of all this was an inability to ensure supplies from national sources and the need to continue buying in from abroad. But the irremediable need of maintaining the *asientos* system did not spell a complete return to the early eighteenth century. The state also introduced some changes here, which once more led to increased monopoly.

3. Back to the Baltic and the asientos

Despite the mercantilist project of achieving a national or colony-based supply, the Spanish navy's supplies in fact continued to depend on far-off countries during the second half of the eighteenth century. Masts, spars and rigging, wood, hemp, iron and tar were still deficit products in Spain and had to be bought in the Baltic by means of *asientos* with private businessmen, Spanish or foreign. The problem with this trade was not only logistic; there was also an important strategic and political factor. Since the Baltic had become such a crucial area for most naval powers, the European states had made access to this market a top-level diplomatic affair. The result was a complex interplay of clashing interests. The English wielded control in the naval supply business during the second half of the eighteenth century but inroads were being made by northern powers and now the French and Spanish were trying to muscle in too.[30] This all added up to a complex and turbulent international provisions market.

30 Pierreck Pourchasse (2008). I am thankful here for his comments.

Everything seems to suggest that the Spanish government stepped up its involvement in the Baltic naval supply trade. Another option would have been to tap into the continual and copious flow of goods through the nearest port to each department for its supply of northern merchandise. This expedient was never taken up as a naval supply method by the government of Charles III. Only in cases of extreme urgency were orders given for any cargo passing through the port to be snapped up. We believe that the very opposite happened; i.e., the trade was steered towards direct procurement of naval supplies from the Baltic, in an increasingly monopolistic, Madrid-centred form.[31]

Until the beginning of the 1760s Baltic hemp was supplied by means of partial purchases offered by Spanish traders from Spain's north coast, who drew on their network of contacts in the north, mainly Amsterdam but also the Baltic, to buy the merchandise.[32] The usual trading arrangement here was for the merchant to bring in small amounts of hemp at his own risk and then offer them to the provincial navy ministers or directly to the shipyard Intendants. Some of them used this as a pretext for getting silver out of Spain, legally or otherwise.[33] In other cases the hemp business underpinned a much wider ranging commercial network of goods and services and helped to make the whole trade more profitable, as in the case of Tomás de Santa Aulary with the supply of Baltic hemp in Bilbao and Ferrol (Torres Sánchez, 1998). This relatively open and competitive model, involving also the participation of foreigners, gradually evolved towards a more monopolistic model in which the final purchasing decision switched from the *Juntas de Marina* of the Maritime Departments to the Navy Ministry. The sales proposals were still received by the Intendants but were dealt with in the Navy Ministry and, increasingly, by *'means of reserved affairs for the* Hacienda'.[34]

31 The monopolistic trend of procuring supplies for the whole navy had a clear precedent in the Crown's business with Juan Fernández Isla, which opened up a whole range of possibilities. As well as a wide range of services, he obtained a 9-year *asiento* in 1750 for supplying all the pig iron and nails for the three departments, l. 787.

32 Marcelo Ramón de Uribarri, a resident of Bilbao, put forward as his purchasing surety, *'the long-standing correspondence and knowledge I have in the main trading cities of the Baltic, such as St. Petersburg, Riga and Danzig'*, Bilbao, 6-11-1754. AGS, Marina, l. 613.

33 Arriaga to Valdeparaiso, on the problem of authorising Juan Antonio de Yunibardia to take out 1,792,000 *reales* from Bayonne after selling 10,000 *quintales* of Riga hemp in Ferrol. Madrid 16-3-1757, AGS, Marina, l. 48.

34 Response to Gerónimo de Retortillo, protégé of Simón de Aragorri, San Ildefonso, 28-8-1761. AGS, Marina, l. 613

A watershed moment in this trend of centralising the supply in Madrid came with the advent of Felipe Chone, a Bilbao merchant, who managed to corner the whole business of northern hemp supplies (Baltic). To do so he offered to make massive purchases for all the state's shipyards over a long period of time, five years, on the express condition that, *'for such time as the asiento lasts no northern hemp should be bought from any other* asentista'.[35] What this merchant was offering the state, in other words, was a *de facto* supply monopoly, converting these purchases into an exclusive business between the Finance Ministry of Madrid and the entrepreneur. The purchasing monopoly option was being increasingly taken up in other areas of military supply (Torres, 2011b), but in this case of Baltic provisions it was a way of ensuring a complex supply arrangement made essential by the puny development of national hemp farming.

Felipe Chone's supply monopoly was maintained despite attempts by various foreign merchants to take over the business. The sternest challenge came from Juan Federico Brandenburgo, consul of Russia. His trading house "Casa ReyBrandenburgo" was well known to the navy; for some time it had been offering cargoes of hemp and other northern produce to the ports of Ferrol and Cádiz and was deemed to be very trustworthy due to its, *'trading credit and its business base in St. Petersburg, making it eligible for preferential rights offered by the Russian empire to patricians of that city in terms of quality and prices'*.[36] With this track record behind him, Brandenburgo offered to take on Chone's *asiento* for the departmental council of Ferrol, undercutting his price. The *Junta* sent on the proposal to Madrid, where it was analysed by the Navy Minister and Finance Minister. The government decided to turn down the bid, despite the cheaper price, since it was seen as unfitting, '*for a foreign consul to become involved in a business that might reveal the failings of the shipyards or armament plans, especially when they are considerable*'. The government preferred to stick with Chone, protégé of Conde de Clonard, who was, it was expressly stressed, a Spaniard and *'vassal of Your Majesty*'. In other words, a whole compendium of strategic and mercantilist reasons.

35 He undertook to supply 12,000 to 16,000 *quintales* of hemp a year, all from St. Petersburg. This amount could be increased if necessary but only with orders of over 4,000 *quintales*. Bilbao, 9-5-1767. AFB, Judicial, Consulado/Mercantil, 2255,/50, in Torres, 1998.

36 Gerbaut to Arriaga, Cádiz, 30-10-1767, AGS, Marina, l. 613. The house itself invoked a wide range of services to the crown: '*SS. Rei, i Brandemburg, established now for many years in the trade of the city of Cádiz… with proven experience in nearly all the troop transports to America, and Regular Fathers of the Society of Jesus to Italy and others of greater scale, which it has undertaken, well known to the Departments of Cádiz',* Ferrol, 19-4-1773, AGS, DGT, Inv.25, l. 15.

To keep this king's subject at the head of the *asiento*, the government did not hesitate to give reserved orders to the treasurer general, Marqués de Zambrano, for the *Real Hacienda* to secretly sustain the entrepreneur Chone, '*albeit at the cost of making him some sort of secret payment'*. In exchange for this economic support the government asked Chone to make some reduction in his hemp *asiento* prices, *'in the assurance that he will be duly paid by the Real Hacienda'.* The whole negotiation was conducted in Madrid and it was expressly decided not to pass on the fine detail or political reasons to the councils of the maritime departments, on the grounds, in the Finance Minister's words, *'that these (navy departments) should not become cognisant of the reserved condition in which the intervention has been made. The only means is for the aforementioned excess to be met by Your Excellency (Marqués de Zambrano) in separate payments apart from the main sum'*.[37]

The Baltic hemp purchases thus became an affair of state, sidestepping the managerial arrangements of the councils of the maritime departments and at times even of the Navy Ministry itself. The government plumped for the option of one monopolistic entrepreneur to guarantee the supply and confidentiality required by such a strategic product; once that decision had been made it did not hesitate to support the *asentista* even by underhand methods, such as officially agreeing one price and actually paying another.

State intervention in this Baltic hemp supply increased in the following years, in line with the growing needs of the navy as war broke out and escalated, with a concomitant increase in European rivalry for access to the Baltic. The need for greater state involvement in this business cum affair-of-state became patent as from 1774. In this year Miguel Soto, Conde de Clonard a resident of Cádiz and trader with America, bondsman to Felipe Chone, notified the minister Arriaga of his trading house's problems in procuring Baltic hemp. Judging from the reports of his commissioners in the Baltic

37 Múzquiz to Zambrano, El Pardo, 11-2-1775. AGS, DGT, Inv. 25, l. 15. These reserved agreements between *asentista* and the Navy Ministry were the source of many headaches for the treasurer general, who then had to account for the extra expenditure. As Zambrano complained to Múzquiz, these reserved payments to Felipe Chone and other *asentistas* of the north, like Carlos María Marracci, were not easy to account for before the *Tribunal de la Contaduría*, *'where many eyes pore over the sums paid'.* He proposed, his suggestion duly taken up, that it be accounted for under, *'the name of secret expenditure, the certifications of the main department comptrollers then being collected in the Ministry under your charge'.*

and in Holland, working in this market was becoming distinctly complex and expensive. The sudden demand surge from the European navies in the area drove up prices and also produced clashes between the Dutch merchants, who had traditionally acted as middlemen and were now bearing the brunt of the increasing competition from the rest of the European merchants.[38] Everything suggests that the Dutch feared losing their main middleman function in the Baltic trade, both for making the purchases and also for dealing with the payment arrangements in Amsterdam. Their reaction, according to Clonard's commissioners, was to drive up the cost of their mediation, especially the financial expense.[39]

Clonard was perfectly familiar with the keys to Spain's foreign policy and the state's aspirations in that area,[40] and knew perfectly well how to broach the problem in the most suitable language. He directly contacted the Finance Minister rather than the Navy Minister, couching it in terms of an affair of state directly impinging on the mercantilist principles upheld by his government. What was at stake here was not the hemp itself but rather, in the entrepreneur's own words, *'the happy success with which His Majesty's flag is allowed to trade in the northern seas and the very subsistence of the Spanish house of Chone y Soto de San Petersburgo*'. At that moment Clonard claimed to be employing 26 ships on this hemp provision trade with a backlog of losses now adding up to over 70,000 *pesos*. Clonard proved that he had shown the highest dedication and made the biggest possible effort in promoting public interests but also claimed

38 This information tallies with that given by the French consuls to their government at this time. My thanks go to Pierrick Pourchasse for allowing me to read his work "Buying supplies from your enemy or how the French navy stocked up with products from the North in the XVIIIth Century".

39 José Guerrero García to Conde de Clonard, Madrid, 17-9-1774. This commissioner informed Clonard of the letters of its agents in the Baltic, warning of the Dutch manoeuvres to drive up the price of their mediation services, '*for even the commissioners we have in Riga, Danzig and other ports where purchases are made, goaded by the rest, have completely changed the credit conditions and sums of the cargoes, doing this so brusquely and with such steepling rises that our correspondents in Amsterdam, to meet these payment obligations, have drawn huge sums on this city, at much shorter terms than hitherto*', AGS, SSH, l. 50.

40 In 1772 Clonard himself had sent Múzquiz a report, asking him to send it up to Grimaldi, showing the coincidence of the state's and Clonard's interest in that area, particularly the project that then sought royal protection for the Baltic trade, *'to ensure the best possible reception of these frigates and a leniency in the duty levied by the Crown of Denmark on the passage through Oresund Strait'*, AGS, SSH, l. 8.

that his ruin was inevitable. That being so, he asked only for state protection, or in his own words, '*the greatest patronage of your excellency (Múzquiz) to counteract these rival powers, bringing to bear all the power of the king (…) with an indefatigable zeal to continue with an undertaking so beneficial to the state*'.[41] Clonard's strategy worked. The government decided to support this entrepreneur unconditionally. The Finance Minister ordered an immediate payment of 40,000 pesos to the *asentista*, advising the Navy Minister, *'that he be conceded this grace because the Asentista is owed a greater sum*'.[42] In other words the state took on the *asentista*'s losses as its own and showed a clear will to keep him at the head of his business. Contrary to the claims of Antonio Ulloa, public and private interests could be merged in a common venture and mercantilism could facilitate this union.

Several concurrent factors weighed heavily in the government's decision to pitch in behind this northern hemp *asentista* and stick to this policy in subsequent years. Firstly there was the prevailing sabre-rattling mood at that time, secondly the state's mercantilist-driven keenness to increase Spain's direct presence in the Baltic and thirdly, in all probability, its mistrust of the ability of the national hemp supply alone to fuel a wholesale naval rearmament programme. There are many examples of government aid given to this hemp *asentista*, although it is not always so easy to ascertain the nature of this support.[43] The important fact is that this increased interaction between state and the monopolistic *asentista* favoured the awarding of other navy-provisioning *asientos* with goods from the Baltic to the company of Chone and Clonard, such as the *asiento* of masts and spars and planking from 1772[44] or bitumen from 1773.[45] When we also factor in that Clonard himself financed other navy provisioning *asientos*

41 Conde de Clonard to Miguel Múzquiz, Cádiz 21-9-1774. AGS, SSH, l. 50.

42 Miguel Múzquiz to Julián de Arriaga, San Ildefonso, 23-9-1774. AGS, SSH, l. 50.

43 For example when Castejón asked Múzquiz to pay Chone, '*the bonus stipulated by secret agreement with regard to the provision of 77 (which) comprised only 13,850 quintales of Riga hemp, when it should have been 16,112 quintales',* Castejón to Múzquiz, 1-9-1778, AGS, SSH, l. 50

44 Felipe Chone and Conde de Clonard also worked with the house of Felipe Kcarney and Francisco Hayden. Executed in Madrid 21-1-1772. AGS, Dirección General del Tesoro (DGT), Inv.15, l. 15.

45 The front man for this transaction was Manuel Martínez, resident of Coruña. They took on responsibility for the supply of all the northern bitumen for three years. AGS, Marina, l. 609. Madrid, 19-8-1773. It was renewed for another four years (1774-77). The main source of tar was Sweden, *'which is now the biggest supplier for France, England and other countries'*, AGS, DGT, Inv.25, l. 15. San Ildefonso, 28-8-1773.

in Spain, such as those of Carlos Maria Marraci, standing as bondsman for any replacement merchant in the event of bankruptcy, we see that this entrepreneur's hand was continually strengthened in an upward spiral of state support.[46] It could even be safely claimed that it was the state that contributed most to the development of this monopolistic entrepreneur. Once more private and public interests went hand in hand.

Naval supplies could no longer be allowed to stray outside the decision-making spheres closest to the government. This trend was confirmed and strengthened by the escalating scale of warfare, making state intervention even more necessary. The first consequence of the sharp demand for hemp was a soaring increase in the asking price. Carlos Maria Marracci, on behalf of Clonard and Chone, informed Castejón that the price of hemp and other Baltic goods had increased considerably in Riga, *'due to the naval rearmament taking place in Europe since 1775'*. In October 1777, Clonard presented the king with an ultimatum: unless the price difference was made up they would renounce the *asiento*. The government once more caved in to the *asentista*'s demands, paying outside the contract the cost increases for the provisions of the last two years. It did the same in the two following years in which, '*the same price increases continued*'. His last contract was in 1778, lasting two years and supplying three departments.[47]

The monopoly-based mutual dependence spiral was a risky ploy because any *asentista* bankruptcy checkmated the state. As with the manufacturing monopoly, it proved difficult to fall back on the market to make up for any *asentista* shortfall. The only solution was to shore up the *asentista* even more, i.e. a new escalation in the spiral of dependence between state and *asentista*. The government had to sustain the *asentistas* not only with secret and underhand payments and agreements, as we have already pointed out, but also with flagrant political exceptions, such as tax benefits. Thus, the Navy Minister had to support Clonard's company when the Ferrol revenue farmers, in observance of a general order for all *asentistas* to pay taxes, demanded payment of the taxes levied on the supplies of northern goods for the Ferrol shipyard. The reasons given by the minister were telling, '*it seems unprecedented for duties to be demanded in*

46 The shadowy presence of Conde de Clonard can clearly be discerned behind some *asiento* changes. Take the case of Ignacio José Haedo's bitumen provisions for navy shipyards, guaranteed by Conde Clonard under a contract beginning in 1-2-1777. Haedo asked to be *'relieved of the obligation because of growing losses run up since that date for unforeseeable reasons'*. He was replaced by Felipe Abancido, a Madrid merchant also guaranteed by Conde Clonard, taking over on 1-4-1778.

47 Northern hemp provision contract, San Lorenzo 17-10-1778, Museo Naval, Biblioteca IMP-C6/38.

such exceptional circumstances when the risk is being taken of bringing them in neutral ships'. His conclusion and recommendation was that, *'this is not the time to weaken them (the* asentistas*)'*. The Finance Minister Múzquiz therefore ordered that a fiscal exception be made for shipments of hemp and other Baltic provisions.[48] In other words, while hemp purchased by a navy commissioner in Catalonia paid duty on entering the Cartagena shipyard, the hemp bought in Riga was duty free upon landing in Ferrol or Cartagena. The growing state-*asentista* dependence was now beginning to jeopardise the government's own mercantilist principles.

This upward spiral eventually meant that the government became increasingly enmeshed in the financial arrangements of these *asentistas*, and might eventually even be forced to replace them. As we have already pointed out, one of the problems faced by these *asentistas* was the use of the Dutch houses as middlemen between the Baltic ports and Cádiz or Madrid. The government's solution was to make the *Real Hacienda*'s overseas offices, the *Real Giro*, available to the *asentistas* to help them finance their naval supply purchases (Torres, 2011). As from 1776, therefore, the treasury of the *Real Giro de Amsterdam*, recorded an unusual spate of activity. Its treasurer, Juan Manuel de Uriondo, and the Minister in The Hague, received a continuous stream of requests for a host of financial services bound up with an increasing gamut of naval supplies. These services involved not only the financing of hemp purchases but also large fabric orders in Holland *'for the Royal Navy'*.[49] The treasury of the *Real Giro de Amsterdam* even sometimes took out loans in Holland to endow itself with liquidity until such time as funds arrived from Spain.[50] According to one estimate made by the Treasury General in 1784 over 11.5 million *reales* were paid out in 1779 alone to defray these naval supply purchases.[51]

48 Castejón to Múzquiz, 16-2-1780, AGS, SSH, l. 51

49 Visconde de la Herrería was furnished with 2,100,000 *reales* to make these fabric purchases, Zambrano to Múzquiz, 21-1-1778. AGS, SSH, l. 268. The objective of this massive fabric purchase was *'to stockpile this useful spare part and head off much higher costs if bought later',* 17-1-1778, Castejón to Múzquiz, 5-1-1778. AGS, SSH, l. 50

50 The whole system was coordinated from the Treasury General of Madrid. For example, should it arise that *'the Treasury (was) low on funds'*, Uriondo had been ordered to pay Vizconde de la Herreria 920,000 *reales 'which it will have raised on loan to pay asentistas on time in the past'*, Zambrano to Múzquiz, 29-4-1776, AGS, SSH, l. 269.

51 AGS, SSH, l. 293.

All the state support doled out for *asentistas* proved insufficient to sustain them in the end. Baltic navigation was becoming an increasingly risky business due to the presence of English ships and the soaring prices of raw materials, insurance and freightage. The result was a rapid withdrawal of *asentistas* from the northern naval supplies business. The *de facto* monopoly conditions that now obtained made the fall and Baltic withdrawal of Chone and Clonard in 1780 an especially grave event.[52] The problem the government faced now was how to replace these *asentistas*. The monopoly had reduced the fold of entrepreneurs working with the state and the climate of uncertainty prevailing at that time dissuaded other potential entrepreneurs from chancing their arm. The solution, once more was political; it could not be dealt with at the level of shipyards, councils or maritime departments so the state itself had to tackle it as a political problem. The Navy Minister himself, Marqués de Castejón, had to acknowledge that it was not a problem that could be solved by navy officials in the departmental councils; once more it was an affair of state. As Castejón explained to the Finance Minister, *'now that the northern passage is practically closed, the hemp and mast-and-spar asentistas have fallen well behind in their obligations and there is now an urgent need to replace them either by means of national goods or bringing in goods from the Mediterranean if need be'*.[53] In other words it was the government who now had to guide the search for the supplies that were no longer arriving, neither from inside nor outside Spain.

Castejón was quite right about this naval supply business being an affair of state and also that the *asentistas* running this business had fallen heavily into debt. But he was not quite so right about the Baltic market now being closed off. Whether to make up for the deficiencies of national outlets or to make the best of the previous shift of naval financial affairs to Amsterdam, the truth is that the Spanish government continued to seek solutions in "the North". The government snatched at the opportunities offered by neutral countries for purchasing naval supplies and transporting them to the Spanish shipyards.[54] To do so the government began to make the purchases directly in the Baltic. The Baltic hemp supply had therefore changed from an *asiento*-based system

52 Liquidation of the effects belonging to the company "Chone y Soto" in St Petursburg. Floridablanca to Múzquiz, 20-9-1781, AGS, SSH, l. 10. The reason for this bankruptcy is given by the firm itself in Archivo Histórico Nacional (AHN), Estado, l. 3210.

53 Castejón to Múzquiz, 7-7-1781. AGS, SSH, l. 51.

run from Madrid to a direct administration system strongly controlled by the state but carried out by private commissioners.

The system was based on a St. Petersburg businessman, Pedro Normande, who bought there the goods ordered by the Secretary of State, charging a commission for the service. In other words it was no longer the departmental councils or Castejón or even Múzquiz who intervened directly in the hemp supply business but the Secretary of State himself, Conde de Floridablanca, on a diplomatic basis. Normande had received from the Conde de Floridablanca, *'a commission as the king's chargé d'affaires in St. Petersburg'*. This remit mainly involved the purchasing of goods of all types for the navy.[55] Normande liaised directly with the Secretary of State and kept him abreast of how the business was going. His purchases were paid for in bills drawn by Antonio Colombi, a Spanish trading house based in St. Petersburg, a merchant who was to become Spanish consul in Russia[56] against correspondents in Amsterdam or Madrid; in the latter case nearly always on the bankers Patricio Joyes, Agustín Queneau or Esteban Drouilhet, who then presented them for payment to the Treasurer General.[57]

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54 Russia played a key role in these supply arrangements. It also offered the advantages of state capitalism in which the Russian government itself offered its war frigates for transporting the hemp to Ferrol. Payments were made in Madrid to Patricio Joyes. In this case in two war frigates costing 1,337,955 rsv. Floridablanca to Múzquiz, El Pardo 5-2-1782, AGS, Marina, l. 592.

55 Although later documents referred in detail to this commission, who ordered it and the reason behind it, we do not know the exact date upon which the commission was given, though evidence seems to suggest that it would have been in late 1780. Castejón to Múzquiz, Madrid, 16-6-1781, AGS, SSH, l. 51. The accounts subsequently presented by Normande refer to the period 1781 to 1784. Flor to Lerena, Madrid, 2-6-1785. AGS, SSH, l. 10.

56 Martínez, 2000: 171 and Ulbert, 2006: 349.

57 There are numerous examples of these payment arrangements, from the original order by Floridablanca up to payment by the Treasurer General, in AHN, Hacienda, l. 6734. E.g., St. Petersburg, 5-8-1781, Pedro Normande informed Conde de Floridablanca of the bill drawn in favour of Antonio Colombi, who endorsed Patricio Joyes, to the value of 20,000 *ducados de plata* for masts and spars ordered for the Royal Navy, and which the Treasurer General paid against the budget consignment of the department of Ferrol. Another dated from 25-9-1781, with the same merchant and value but for planking and hemp. The choice of these banking houses as receivers was probably because they were known, solvent and had good relations with the commercial networks linking Cádiz with Europe. In any case it all formed part of the same clique of mutual trust and interchange of information and business. There are sometimes express references to the link between the network participants. Thus, Esteban Drouilhet referred to Pedro Normande as his *'friend from Petersburg … who needed these funds to meet various obligations he has undertaken on our behalf'*. Esteban Drouilhet to Floridablanca, 26-6-1781, AGS, SSH, l. 51.

It was sometimes Normande himself who drew the bills, mainly against the Treasury of the *Real Giro de Amsterdam*.[58] The Treasurer General then recorded all these expenses in the corresponding navy department, charged against the budget consignment for that year or directly, i.e., the same procedure as would be used by a navy commissioner buying hemp in Aragon or Granada. The selfsame procedure was used with the insurance and freightage of the neutral ships bringing in goods procured in the Baltic. Whether procured in Amsterdam or, again, in the Baltic, reports on the management thereof were sent up to the Navy Ministry '*as reserved state information*' under the supervision of the Treasury General.[59]

The upshot of all this was that Baltic hemp was still the most widely used raw material in the shipyards' rigging and sailcloth factories. Its purchase was coordinated from the State Secretariat as a diplomatic matter, carried out by private merchants, who acted as navy commissioners and were paid directly by the *Real Hacienda* in Amsterdam or Madrid. National hemp played second fiddle. The navy's typical eighteenth-century demand surges called for more flexibility and fleetfootedness than the national market could come up with, forcing the government to turn to the overseas markets. Mercantilism was without doubt the pet theory of Spanish politicians and thinkers but its application did not produce the desired results. The Spanish contractor state was only partially successful in passing on the potential benefits of the hemp, sailcloth and rigging trade to the national economy.

58 He drew the bills against the Treasury of the *Real Giro de Amsterdam*. Pedro Normande drew on the treasurer of Amsterdam *'up to the sum of 4000 roubles'* for expenses incurred on the royal service, 6-2-1780, AHN, Hacienda, l. 6731.

59 E.g. the taking out of insurance in Amsterdam on the Russian ship "Ana Martina", which had brought *'navy effects of the king'*, to the value of 670 *ducados de plata 'against Floridablanca'* which had been presented by Agustín Queneu, 16-12-1781. AHN, Hacienda, l. 6734.

Bibliography

AQUERRETA, S. (2001). *Negocios y familias en el siglo XVIII: la familia Goyeneche*, Pamplona: Eunsa.

CARLYON, J. (2009). "Gerónimo de Uztáriz and the economic shades of enlightenment in Spain" in *Cuaderno internacional de estudios humanísticos*, 12, pp. 7-24.

DÍAZ ORDÓÑEZ, M. (2010). *Amarrados al negocio. Reformismo borbónico y suministro de jarcia para la Armada Real (1675-1751),* Madrid: Ministerio de Defensa.

FERNÁNDEZ ALBALADEJO, P. (1977). "El decreto de suspensión de pagos de 1739: análisis y explicación", in *Moneda y Crédito*, 142, pp. 51-81.

FERNÁNDEZ DURÁN, R. (1999). *Gerónimo de Uztariz (1670-1732). Una política económica para Felipe V*, Madrid: Minerva.

GÁRATE OJANGUREN, M. (1990). *La Real Compañía Guipuzcoana de Caracas*, San Sebastián: Sociedad Guipuzcoana de Ediciones y Publicaciones.

GÁRATE OJANGUREN, M. (1993). *Comercio ultramarino e Ilustración: la Real Compañía de La Habana,* San Sebastián: Real Sociedad Bascongada de los Amigos del País.

GONZÁLEZ ENCISO, A. (2000). "La política industrial en el siglo XVIII", in L. RIBOT (ed.), *Pensamiento y política económica en la Época Moderna*, Madrid: Actas, pp. 137-171.

GUASTI, N. (1998). "Forbonnais e Uztáriz: le ragioni di una traduzione", in *Cuadernos aragoneses de economía*, 8, 1, pp. 125-141.

MARTÍNEZ RUIZ, E. y M. PI CORRALES (2000). *Commerce and navigation between Spain and Sweden throughout history*, Fundación Berndt Wistedt

MERINO NAVARRO, J. P. (1981). *La Armada española en el siglo XVIII*, Madrid: Fundación Universitaria Española.

MERINO NAVARRO, J.P. (1975). "Cultivos industriales: el cáñamo en España, 1750-1800", in *Hispania*, 130, pp- 567-584.

O'BRIEN, P.K. (2006). "The Formation of a Mercantilist State and the Economic Growth of the United Kingdom 1453-1815", United Nations University, UNU-WIDER, Research Paper nº 2006/75.

O'BRIEN, P.K. and X. DURAN (2011). "Total Factor Productivity for the Royal Navy from Victory at Texel (1653) to Triumph at Trafalgar (1805)" in UNGER, R. W. (ed), *Shipping And Economic Growth 1350-1850*, Brill Academic Publishers, pp. 279-308.

POURCHASSE, P. (2008). "La Baltique, une zone active du grand cabotage européen, XVII-XVIIIe siècles", in *Revue d'histoire maritime*, 8, pp. 39-66.

QUINTERO GONZÁLEZ, J. (2003). *Jarcias y lonas: la renovación de la armada en la Bahía de Cádiz, 1717-1777*, Cádiz: Grupo Publicaciones del Sur.

QUINTERO GONZÁLEZ, J. (2004). *La Carraca. El primer arsenal ilustrado español (1717-1776)*, Madrid: Ministerio de Defensa.

SANZ AYÁN, C. (1992). "Negociadores y capitales holandeses en los sistemas de abastecimientos de pertrechos navales de la monarquía hispánica durante el siglo XVII", in *Hispania*, 182, pp. 915-945.

SERRERA CONTRERAS, R.M. (1974). *Lino y cáñamo en Nueva España*, Sevilla: EEHA.

TORRES SÁNCHEZ, R. (1998). "Comercio y asientos militares. Hacia la integración comercial del Cantábrico en el siglo XVIII" in *Cuadernos de Investigación Histórica,* 17, pp. 81-108.

TORRES SÁNCHEZ, R. (2000): "Producir o comprar, la demanda de la corona española de productos industriales en el siglo XVIII", in L.A. RIBOT y L. de ROSA (eds.)*, Industria y Época Moderna*, Madrid: El Río de Heráclito, 2, Actas-Istituto per gli studi filosofici, pp. 95-131.

TORRES SÁNCHEZ, R. (2002). "Cuando las reglas del juego cambian. Mercados y privilegio en el abastecimiento del ejército español en el siglo XVIII", in *Revista de Historia Moderna*, Alicante, 20, pp. 487-511.

TORRES SÁNCHEZ, R. (2003), "Campomanes y el comerciante y financiero Simón Aragorri" in D. MATEOS DORADO (ed.), *Campomanes doscientos años después*, Oviedo: Universidad de Oviedo, pp. 709-18.

TORRES SÁNCHEZ, R. (2012), *La llave de todos los tesoros. La Tesorería General de Carlos III*, Madrid: Silex.

ULBERT, J. and G. LE BOUËDEC (2006), *La fonction consulaire à l'époque moderne: l'affirmation d'une institution économique et politique, 1500-1800*, Rennes: Presses universitaires de Rennes.

ULLOA, A. de (1773, ed. 1995), *La Marina: fuerzas navales de la Europa y costas de Berbería*, estudio de Juan Helguera Quijada, Cádiz: Universidad, Servicio de Publicaciones.

UZTARIZ, G. (1742, ed. 1968), *Theórica, y práctica de comercio, y de marina.* Madrid: Aguilar.